ENCYCLOPAEDIA OF
NARCOTIC DRUGS AND
PSYCHOTROPIC SUBSTANCES

[In Three Volumes]
DR. GIRI RAJ SHAH

Foreword by: **Dr. Kiran Bedi**

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Today *drug abuse* and *drug trafficking* have assumed serious proportions all over the world and perhaps no country is free from its evil effects. It is one of the most burning problems of this century

What is a drug? How does a common man understand this term? Why an individual takes drugs? Why drug addiction is rapidly increasing criminality? What is the world-wide network of nefarious activities and interconnection amongst the Mafiosi of Asia, Europe and the USA? What is the methodology of money laundering? What is the difference between Narcotic Drugs and Psychotropic Substances?

The timely and thought provoking study in the form of Encyclopaedia divided into three volumes Each volume is a separate book in itself.

Ecstasy and Agony: History of Drugs, Identification of drugs, Heroin: use and abuse, Cannabis: use and abuse, Cocaine: use and abuse, Youth and drug addiction, Drugs and sports, AIDS and intravenous drug abuse, Drugs as its instigating agent for crime

Drugs' Dangerous Dimensions and Tobacco Smoking: The Golden Triangle, Asia drug epidemic, International phenomenon of narcotic smuggling, Land of drug dons: Colombia, Pakistan-nexus and narcotic nucleus, Indian connection, Strange smugglers and dubious destination, Money laundering, Narcotics and terrorism, Law enforcement, Prison and drug control, Socio-medical strategies, United States' war on drugs, Hazards of Tobacco smoking

Indian Initiative: Anti-drug measures by India, Measures against illicit traffic, Legislation for eradicting drug abuse, Preventive Procedure under NDPS, Act 1985

The study includes the National Drug Enforcement Statistics and up-to-date details about the present state of legislation, notifications under the various Acts and Rules as also the other related regulatory orders

Written in easy-to-understand language this scholarly study will prove to be highly useful and informative to students of colleges and universities, libraries, journalists, authors, editors, social scientists, medical students, medical practitioners, pharmaceutical companies, druggists, sports persons and enforcing agencies of the governments both in India and abroad

Dr. Giri Raj Shah, a distinguished police officer and prolific writer, is currently posted as Inspector General of Police, T.S., U.P. He has to his credit recovery of 24 kgs. of heroin worth Rs. 24 crores in International Market. He was assigned the challenging task of dealing with terrorists who were hand in glove with Narco-Terrorists. He is a member of many renowned organisations like Royal Geographical Society, London.

IN THIS ISSUE

Towards a Meaningful Education

S. Lakshmi*

Education which aims at helping a person towards realization of the best and most human qualities he finds in himself, has lagged behind this laudable objective, in most instances In ours and in other countries, schools have never been free from the danger of producing subservient conformists, instead of free citizens. Efficient schools with a firm value system are needed in order to produce efficient citizens The three-dimensional aims of education being (a) the cognitive, (b) the affective, and (c) the skills, the curricula at schools and colleges, to a large extent, consider the transference of knowledge and skills, in the learner, through instruction but the affective criterion is mostly neglected, in the context of the written examination, demanding that the learner concentrates on academic knowledge-pursuit, much to the neglect of the value development, which is of utmost importance, in personality development of pupils and in social unity and prosperity. Youth should be educated to face an unpredictable future, that is, very different from the present Education for peace and co-operation, and should attempt at achieving a new-humanism, relevant in the context of society today Importance of education, in such a context can never be overlooked.

Education is a process of development from birth to death. Man becomes a full human being through education and he alone could be educated, whereas the lesser beings could only be trained. When basic needs get satisfied, man craves for the satisfaction of higher needs. Bread alone does not suffice Education refines sensitivities and preception that contribute to individual growth and development, social cohesion and national spirit

As a system, if forms part of the social system As an open system, education has inputs from the environment, and provides such outputs, as are required by society and the individual. The system of education is meant to achieve the social, economic, political, cultural and spiritual goals In fact, education should help the creation of a social order, relevant to the changing times. In any society, the educative process is aimed at developing individual personality, and to preserve and improve, the society Education, hence, as a system becomes a potent instrument for achievement of society's goals. Swami Vivekananda defines Education as the manifestation of the perfection already in man. According to him, the teacher should be able, as it were, "to transfer his soul into the soul of every student, see through the students' eyes and hear through their mind " He goes much beyond the mere transference of knowledge or information into his pupils. His intellectual sharpness, sharpens the scholars' wits; his emotional contact, with them, develops their affective capabilities In the participatory process of educating he develops the meaningful life skills in pupils

It is expected of education today that it might not be confined, in the present and in the future, to giving the learner, a stock of knowledge and cultivating an interest in further learning. It must also establish attitudes and skills and enhance the spiritual life of the individual. 'Character' of the person, should be developed consciously, though con-

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duct-learning is attempted by rules of discipline, at home and at school Characteristics, such as discretion, sense of responsibility generosity, empathy, and the spirit of independence are as vital as intellectual capacities, such as identifying an issue, relating cause and effect, arriving at generalisation and decision making

Attitudes and skills, hence, are expectations from any level of education This is because of trends in society such as the rapid evolution and mobility of the working world as also the complex problems faced by individuals in the context of global competition, triggered off, by the fast-raced electronic setting. Change is occurring in every aspect of living and many such changes are unprecedented Speed in communication, travel and machine made products have made humans achieve in material comfort what they have never achieved before. The number of practical problems are also on the increase. In the industrial sectors and in business organizations, confrontation with the workers by the managers and vice versa, poses the major hurdle, for productivity. Places of religion, instead of offering peace and solace to the human beings, are in most cases, venues for voicing protest, violence and unhappiness At homes, rarely parents meet their children and spend time with them. Political uncertainty and authoritarian mismanagement spell near doom in matter of administration. Educational institutions clamour for curriculum completion and certification through examination

The right thinking people get worried about such a predicament in daily life Youth and children happen to be the saving factor in such a context of speed without direction, change without vision and material progress devoid of human happiness.

Interestingly educators and curriculum builders have been influenced by the immediate need of a value-developing system in schools and colleges. The focus, it is felt must be on positive attitude to life in general and good things in particular. The Soka Gakkai International, the world-wide organization, headed by Dr. Daisaku Ikeda of Japan, with this in view, has established the Soka University and other educational and cultural institutions in Japan and in many parts of the world, for value-creation through education. Worthwhile attempts have already been made by the Ramakrishna Mission and associated institutions of education, since their focus is on Swami Vivekananda's plea, through education, for the development of character, culture and curriculum, in students whatever the level of education

Most pupils, parents and teachers who are capable of seeing beyond the horizon of their own subjects, are increasingly feeling the need for a system of education, centred not only on fundamental concepts, but also on attitudes, values and skills, which can ensure the mastery of the knowledge acquired, its enrichment and its renewal, leading to personality growth A strong emphasis on values and attitudes had already been spelt out by the British system, focussing on compulsory schooling for all children below the age of fourteen The Japanese authorities feel that values and the formation of attitudes, such as generosity, responsibility, moral and aesthetic sensibility and others, must in the present and in the future, occupy a more important place in education In our country the temporary focus on mere material prosperity is shifting to a more permanent solution of human ills by a system of education, in which value creation and personality development will play a major role

Hence conferences and seminars and other programmes are conducted more often than before, by institutions of education for this purpose In the recent conference on "Teachers-2000" conducted by the Rotary Club of Coimbatore Texcity and the DesaBaktha Movement in Coimbatore, the sessions emphasised the need for value education and attitude-development, through the curriculum and the co-curricular programmes Some of the participants were of the view, that Teachers' Associations, in the state and outside, could undertake to spread the vital message of value-imbibement by youth, in the educational environment and in the social setting

Countries outside India practise quality assurance which is both a philosophy and an approach, which unite two distinct function of the school system, contributing to the development of schools and providing an avenue for accountability to the community outside Periodic reviews of quality assurance are also attempted to ensure the success of the goals set up by educational institution, in terms of quality of life, developed by the quality of education

The system of accountability-check will be a great help to institutions, which happily take sure steps towards such quality education. Other institutions irrespective of the levels or disciplines, should focus on such clear steps towards character and quality in youth, since the absence of values in educational system, will spell out doom for society and its onward march towards progress

2

Thesis Evaluation Scale

H. Dhand*
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Introduction

The method of evaluation of research work currently in practice in many of the universities in India and abroad does not delve deeply into the merits or shortcomings of research work. The reports of evaluation of a research work tend to take the form of a binary decision : 'commended' or 'not commended' In order to justify such a brief judgement, usually one or two paragraphs, in which the content and style of the work are touched upon, are provided. In other words, the examiner of a research work shows the tendency to make evaluation on the strength of the overall impression gathered during the persual of the work rather than arrive at the evaluation in a more scientific manner. This approach to evaluation does not pay attention to various stages and components of a research work i e. such an evaluation of a research work would be an amorphous world-view of the whole thing taken at one brief glance. Thus, in the place of an objectively-coordinated evaluation, one is likely to have a hazy impressionistic response to a research work.

Since the conclusions derived from a research work contribute to develop theory, principles and generalizations that emerge from the analysis of the relationship between variables and between the various stages of research, such as identifying and conceptualizing the problem, design, methodology, analysis and discussion, the evaluation of a research work in terms of the validity, the functioning and the purposeful relationship of the various components becomes essential. Any abrupt and unscientific global view would be an inadequate means of evaluation. Hence there is justifiable need to devise a model of research evaluation that would reflect on the adequacy and validity of each component and every stage of the research work. Further, the model should facilitate the assessment of the relationship of the parts of the research to the whole, since, if only the parts are relevantly structured and valid, could the

final research outcome be dependable? Therefore, there is imperative need for a research evaluation model that would examine closely every stage/component of a research work and arrive at an overall objective evaluation.

Conceptual Analysis

A model for the objective evaluation of research works had to be developed anew since a study of relevant literature reveals that there is practically no scientific model of evaluation available at present. The few models available, serve only as guidelines to researchers to design their dissertation/thesis and they are not instruments of evaluation.

Anderson et al (1970) have devised two models— one for Empirical/Experimental studies and another for Analytical/Literary studies. In the former, five major headings, namely, Problem, Design, Procedure, Analysis and Conclusions are suggested, with a number of items under each head The latter presents an evaluatory chart on a five-point scale with four major headings, namely, Objectives, Procedures Analysis and Conclusions. The former is not, strictly speaking, a model for evaluation. Nothing has been said about grading the achievement of a research product on a discrete point-scale. Nor does it suggest any binary set of evaluatory criterion like "Strong/Weak", "Good/Poor" or "Pass/Fail". It is more a consortium of items for a researcher to review the whole design of the thesis than an evaluatory model for the examiner with break-up details leading to a wholeness of judgement. In the case of the model suggested for Analytical/Literacy studies, though the items under each heading seem to be exhaustive, not only are a number of items left out of consideration, the overall design itself does not appear to be adequately satisfactory.

Many authors, including Snodgrass et al (1985), have presented a list of components of a research work and explained what each component contained. It is more of a guideline to the researcher for structuring the work than an instrument for evaluation. Snodgrass et al (1985), also offer a lengthy discussion of the components of a research report. Interspersing the explanations with frequent illustrations, the discussions elaborates how every component of a research work, from title to style, should be struc-

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tured The process of acquiring a list of reference materials relating to the topic is exhaustively explained. But, neither any guideline for the researcher to check up the final product in terms of its parts, nor a format of evaluation for the examiner, has been suggested .

Usually, two aspects of the research report are discussed. One is the general format to be adopted in research reporting. The other deals with the nature and content of each of the research components such as the title of the problem, the search for relevant literature, and methodology. But there is no readymade scale of evaluation of a research product to be used either by the researcher for self-evaluation and possible restructuring of the thesis/dissertation or by the examiner to evaluate the product.

Need

Analysis of available literature on research report and evaluation make it clear that while there is an exhaustive variation on the format and the content and style of a research report, there is, practically no model or scale for evaluating such a report. In the absence of such an evaluative model, evaluation has been carried out from an impressionistic perspective rather than on any scientific basis that would focus on the strengths or weaknesses of each research component, the interrelationship among the components, the whole structure of the report and the relationship between the components and the whole. Only such a focus could touch upon and assess the intrinsic worth of any research report including the thesis or dissertation. Hence, there is an absolute and immediate need for a model of evaluation of research reports.

Preparation of the Instrument

A two pronged effort was undertaken to formulate the proposed scale of evaluation. The first step involved the listing of the various components of a research work with specifications, explanations and suggestions made with regard to each such component in the literature discussed earlier. The second was a close examination of a number of approved dissertations and theses in various disciplines with focus on the format, the plan and execution of the thesis undertaken and the development of the argument. On the basis of such a study, the following major components were developed :

i) Choice of Area/Topic

ii) Relevant Literature Analysis

iii) Statement of the Problem

iv) Assumption, Objectives, Hypotheses

v) Research Design/Methodology

vi) Execution of Experiment

vii) Preliminary/Pilot Survey

viii) Data Collection/Processing

ix) Analysis/Findings

x) Summary

xi) Symmetry

xii) Communication

xiii) Format/Mechanics

xiv) Specific Remarks/Comments

xv) General Remarks/Comments

Under each component up to number thirteen a number of items were given in order that a consideration of such items would facilitate a comprehensive assessment of the whole component. The merit of each item, as achieved in the thesis or dissertation, was to be ranked in the five-point scale for which space was provided against each item.

Validation of TES

The Thesis Evaluation Scale (TES) thus devised was sent to 25 professors in India and Canada who are experts in the field of research and are experienced examiners of research thesis for their expert opinions on the Thesis Evaluation Scale. The collected expert opinions were pooled, collated, analyzed and synthesized. Many changes and additions were made in the Thesis Evaluation Scale on the suggestions received from the experts Some of those changes are given below :

Limitation and Delimitation of the research themes were added and some of the items were reworded for clarity.

A few items on the quality and the comprehension of discussed related studies and the evaluation of reltated studies were added to the section on analysis of relevant literature

The experts were of the view that the term "Expression of the Problem" be reworded as "Specification of the Problem " The term "Significance of the Statement" was totally rejected

In item iv, objectives and hypotheses were divided into separate components. The relevance, validity, statement and their relation to research theme and hypotheses were placed under separate headings.

With regard to the component "Research Design/Methodology", the item "Appropriateness of

Method" was suggested to be placed above "Description of Method Used", and below it, the item "Definition of Key Terminology" was placed. In the light of expert opinions, this component was simplified for more clarity and specificity.

Slight modifications were carried out under the title "Execution of Experiment."

Item vii "Preliminary Pilot Survey" was merged into item viii "Data Collection/Process" and items which were considered less relevant were deleted. In the section "Analysis/Findings" the items were rearranged and the indicators in "Summary" were also restructured.

The items under the section "Presentation", "Communication" and "Format/Mechanics" were simplified and the minute details of items were presented sequentially

In total, the suggestions for improvement, additions and omissions made by the experts of theses were carefully considered and the changes were effected accordingly

In addition to this, the content and items of the Thesis Evaluation Scale were validated for relevance, appropriateness, authenticity, manageability, practicality, general applicability and convenience. About 75% of the experts indicated that the TES is relevant, appropriate and authentic About 65% of the experts indicated that the instrument is manageable, practical, generally applicable and convenient for usage. Thus, the scale was validated for both content and scoring

The validated final version of the scale (Appendix A) has 14 major components and items under each component are arranged in a logical sequence. Each item is to be ranked in the space against it under the scales "A", "B", "C", "D" and "E" with scores allotted in descending order from 5 to 1 from "A" to "E" respectively at the end of the TES "A" stands for excellent, "B" for good, "C" for mediocre, "D" for poor and "E" for very poor

Merits

One of the major advantages of the proposed Thesis Evaluation Scale is its objectivity. The consideration of a thesis in the light of the details of each major component makes evaluation rigorous, methodical and logically sequential Hence, the pitfalls inherent in the general evaluatory remarks springing from the final impressionistic response of the examiner are avoided

The facility for totalling the score under each component helps the examiner assess not only the

nature of distribution of research attention over the parts of the thesis but also the strengths and weaknesses of the whole thesis as exhibited in its parts. This type of sub totalling, leading to the grand total, could help make the final assessment objective and reliable. However some examiners may not like sub-totalling each section. They may prefer to total at the end of the scale.

When published and made accessible to researchers, the scale can also be used as a checklist by the researcher in not only arranging the components of the work, but also for making a rigorous self-evaluation of the thesis before submitting it for evaluation by examiners.

If the researcher was asked to evaluate his/her thesis using the scale, then the result of his/her assessment can be juxtaposed with that of the examiners using the same scale in an effort to find out how far a consensus of judgement could be achieved in evaluating a thesis.

The duly validated scale was found appropriate to evaluate empirical research works The experts had also stated that the TES would be a good instrument for evaluating empirical studies and statistically-oriented research undertakings It was also remarked by the experts that the TES provided means for standardized judgement of a thesis and that it constituted a valuable guide and framework that would be useful to examiners of research works

Since the major components and items under each component focus on empirical/experimental studies, it may not be a suitable evaluation scale for assessing literary/analytical research works Hence, it is suggested that another Thesis Evaluation Scale be developed for assessing qualitative research works

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THESIS EVALUATION SCALE

	A	B	C	D	E
I. Choice of Area/Topic					

I. **Choice of Area/Topic**

    1. Scope for fresh research in area chosen _____

    2 Research potentials of the theme _____

    3. Delimitations _____

                                  Total = _____

II. **Analysis of Relevant Literature**

    1. Comprehension of discussed relevant studies _____

    2. Quality of discussed related studies _____

    3 Evaluation of related studies _____

    4. Justification of research theme in relation to analysis of related literature_____

                                  Total = _____

III. **Statement of the Problem**

    1. Logical formulation of the problem _____

    2. Specification of the problem _____

    3. Statement of problem as summary of research done _____

                                  Total = _____

IV. **Objective & Hypotheses**

    (A)Objectives :

    1. Relevance _____

    2. Validity _____

    3. Relation to research theme _____

    4 Statement _____

    (B) Hypothesis ·

    1 Relevance _____

    2. Validity _____

    3. Relation to research theme _____

                                  Total = _____

V. **Research Design/Methodology**

    1 Appropriateness of research method _____

    2. Description of research method used _____

    3 Definition of key terms/terminology_____

    4. Selection of variables _____

    5. Rationale behind sample selection _____

    6. Adequacy of sample size _____

    7 Selection of appropriate instruments _____

    8. Construction of instruments _____

    9 Validation of instruments_____

                                  Total = _____

VI. **Execution of Experiment**

    1. Relevance of experiment to research design _____

2. Planning of experiment _____

3. Stages/phases of experiment _____

4 Feasibility _____

5. Replaceability _____

Total = _____

VII. Data Collection

1. Validation of design/instrument through pilot study _____

2. Sources of data _____

3 Mode of data collection _____

4 Relevance of data to research problem _____

5. Data classification _____

Total = _____

VIII. Analysis/Findings

1. Scheme of data analysis _____

2. Application of analytical/statistical instruments _____

3 Use of tables/figures _____

4 Testing of hypotheses _____

5 Relating findings to objectives _____

6. Relating findings to research problem _____

7 Discussion on findings _____

Total = _____

IX. Summary

1 Discussion on earlier chapters _____

2 Synthesis of research findings _____

3 Educational/research implications _____

Total = _____

X. Presentation

1. Chapter division _____

2 Chapter size distribution _____

3 Development of ideas/arguments through chapters _____

4 Structuring of paragraphs _____

5 Organic structure of theses _____

Total = _____

XI Communication/Writing Style/Quality of Writing

1 Mode of discussion _____

2. Vocabulary _____

3. Clarity _____

4. Coherence _____

5. Cohesiveness _____

Total = _____

XII. Heading, Sub-heading, Spacing, Rules of Citation, etc.

1. Adequacy of references _____

2. Acknowledgement of sources _____

3. Use of appendix/appendices _____

4. Punctuation _____

5. Use of abbreviations _____

6. Table of contents _____

7. List of tables/figures _____

8. Overall format _____

Total = _____

XIII Specific remarks/comments

XIV. General remarks/comments

Total = _____

_____

A — Excellent

B — Good

C — Mediocre

D — Poor

E — Very poor

Pricing Methods for Information Services & Products

K. Rama Patnaik*

Marketing programme of any organisation entails various activities, practices and policies Marketing mix is heart of any marketing programme comprising the four tools, namely, Product, Price, Place and Promotion. It is only the component of marketing mix which generate revenue.

Price is defined as "an amount of money and or other items with utility needed to acquire a product". It is one of the complex components of marketing mix whose adoption is subject to circumspection as it reflects the overall goals and objectives of the management.

As regards, libraries and information centres, the term 'price' continues to be controvertible in evoking a response both from its proponents and detractors among the professional fraternity.

Pricing is not a new phenomenon for libraries and information centres Charging for inter library loan, overdue books, photo copying and reprographic services and some of the computer based services is a common feature in many libraries today.

In traditional environment of library and information centres, the discomfiture with the idea of pricing stems from the misplaced apprehension of gradual withering of libraries altogether as it would deter the already reluctant user

But of late, the current interest in pricing is heightened by dwindling financial resources, the advent of sophisticated computer and communication technology, and above all, the intrusion of enterprising companies to our bastion of library and information centres.

Need

The need for pricing can be emphasised by cataloguing the following factors :

1. Economic resources are fast shrinking forcing the libraries to look for alternate sources of revenue.

ii. The advent of modern technological marvel,

the computer, inducing the environment in providing an effective mechanism to improve the efficiency of services in terms of speed and accuracy.

iii. The desire to introduce new services relying on technology can only be fulfilled by generating additional revenue through pricing.

iv Management would be more accountable in managing its scarce financial resources.

v. Pricing also helps in self-sustaining the libraries financially.

vi Exploration of commercial potential of information services and products by other organisations can be effectively thwarted by the mechanism of pricing of products by libraries and information centres.

vii. Pricing also adds value to the information services and products which may indirectly effect the extent of use of those services and products.

viii. Pricing also helps in eliminating unwanted products and services.

In the light of the above factors, the apprehensions and unspoken fears expressed by traditional and dogmatic professionals seem to be misplaced It would be a delusion to ignore these factors which are sound enough to be considered by the decision makers. In fact pricing now is seen as an avenue for libraries and information centres to salvage their credibility of playing a significant role in the contemporary society

Factors Influencing Pricing

A decision on pricing must always be preceded by consideration of the following factors :

1. The organisations's overall objectives and goals must be kept in mind while fixing the price which could be profit maximization, survival, cost recovery or sustain competition, and a blend of all of the above.

2. The organisation should/must confirm the existence of demand for the product/service offered. In words, there should be a mar-

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ket for the product offered which is ready to pay the price fixed

3. The threat of potential competition which could be from the following quarters .

   a. Similar products/services.

   b. Alternates/substitutes by other organisations.

A survey of competitor's/non-competitors' price is essential

4. Finally, the most potent of all is the cost incurred in production of service/product It may be categorized into the following types :

   a. *Fixed costs* The costs which remain constant irrespective of the number of units produced. This could be salaries, rents, costs associated with processing, acquisition, weeding etc.

   b *Total fixed cost* It is sum of all fixed costs

   c. *Average fixed cost* It is the total fixed cost divided by number of units produced.

   d *Variable cost* . It is directly proportional to the level of production. It is so called because it varies with production of each unit. For e.g. cost of formulating profiles in SDI services, mailing and distributing the service, cost of replacing a missing periodical etc.

   e. *Total variable cost*. It is the sum of all variable costs

   f. *Average variable cost* · Total variable cost divided by the number of units produced.

   g *Total cost* · It is the sum of total fixed costs and total variable costs for a specific quantity produced.

   h. *Average total cost* : Total cost divided by number of units produced is average total cost.

   i *Marginal cost* · It is the cost of producing one more unit.

'ricing Objectives/Goals

Pricing goals and objectives set the stage for adopting an appropriate method of pricing The selected objective or blend of objectives must always be compatible with the organisation's overall goals and objectives.

Keeping in view the product's or service's potential to attract a price, the management has to choose one or more than one of the following ·

i. *Profit maximization* . To fulfil this objective, the management has to charge the highest possible price to make substantial profit.

ii. *Cost recovery*. Most libraries and information centres resort to this objective in order to cover all the costs incurred in production of service or product But this objective requires a full estimation of all costs incurred to produce them

iii *Countering competition* : In order to sustain in competition the organisation may have to survey the competitor's/non-competitor's prices to determine the right price for its services.

iv *Free distribution of services* In a non-profit environment free distribution of services is also a pricing objective, as it could be expressed in non-monetary terms such as time, trouble, pain or any such activity that is foregone in acquiring an information product or information through a service.

Pricing Methods

H. Zais has presented three models which may be appropriate to information services and product pricing. (*JASIS, Mar '97*)

1. *Average cost pricing* · With the goal of breaking even, the selected price should cover all the fixed and variable costs incurred on the product, with the assumption of isolating them under fixed and variable
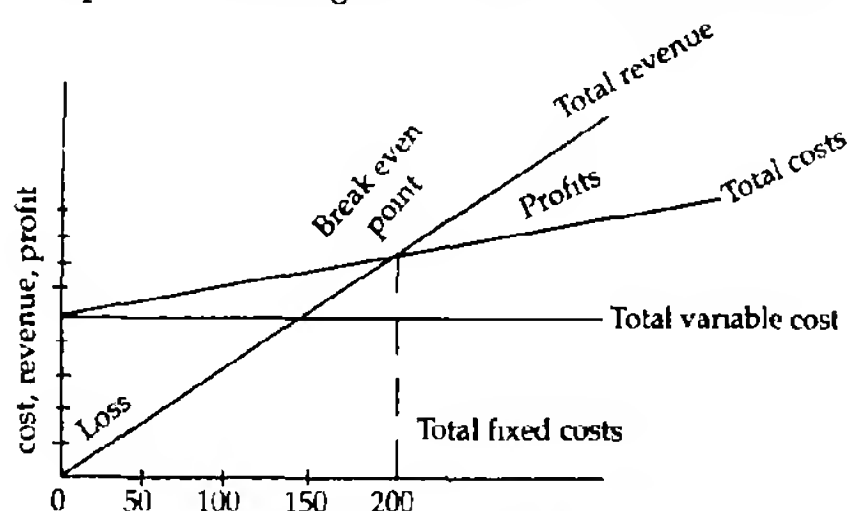

Figure 1 : **Break-even analysis**

If the organisation sells two hundred units, all the costs will be covered. And sale of each unit above 300 will yield profit.

One of the greatest disadvantages with this method is that it completely ignores the components

of demand which definitely influences the price. Moreover in large and complex organisational set up, categorization and estimation of all fixed and variable costs would be a tough job.

2. *Price Discrimination* · The second method utilises the differences in price elasticities of demand for a product or service. There would be more than one price for the same product or service offered.

Price discrimination is applicable to only when the market in which it is introduced is segmentable and each segment shows different elasticity of demand. Secondly, there should be little chance that those paying the lesser price could resell the product to the segment paying higher price This technique could be aptly pratised for SDI services.

3. *Marginal Cost Pricing* · Marginal cost pricing is a strategy that is patronized by welfare economists as a means of achieving the goal of net social benefit. It is defined as the incremental cost of producing another unit of output. This method also relies on the precise information/data on marginal cost which is difficult to estimate.

Average cost pricing and marginal cost pricing are the methods/techniques which could be used to meet the objective of recovering the costs. Whereas price-discrimination is not directly influenced by the supply cost

Contrarily, Johan L. Olaisen has presented five models of pricing using economies of scale. (*Libri, Dec '89*)

1 *Optimal Pricing*. This model could be adopted to meet the objective of profit maximization It requires a monoploistic situation or a situation where the product/service offered is better than that of the competitors. This occurs when the marginal cost just equals marginal revenue.

But this method has to overcome two shortcomings viz. the variation in demand and maintaining the quality of service/product

2. *Pricing according to Value* : In this method groups of users are segregated and charged prices that are maximum which they are willing to pay. This inequitable technique would be executed only when the market is segmented and the low cost segments should not be able to resell services to the users in high cost segment.

3. *Marginal Cost Pricing* . It is defined as an incremental cost of another unit of output. Its approach is to encourage capital intensive infrastructural fa-

cilities, over a range of decreasing costs. Marginal cost pricing could be set to cover the marginal cost of processing another profile in case of SDI services.

4. *Pricing for Cost Recovery* : The price determined according to this method should cover all costs of operation excluding profit. This cost based pricing would be very difficult for libraries as it will be perfectly inelastic to the demand for its services.

5 *Free Distribution of Services* : This is also considered as a technique by Olaisen (*Ibid*) as society would pay all costs through taxation. Here price is measured in terms of time and trouble or any other activity foregone to acquire a product or service.

Conclusion

A decision on pricing for libraries and information centres is the most complex issue confronting the libraries The heterogeneous nature of information services as a product and the uncertainty in the minds of users about the benefit & utility derived from the product make it even more complicated.

Its inevitability is compounded by various factors making it imperative for the decision makers to explore various models that could be suitably applied to products like information services. With technology spreading its tentacles, almost all online services and some of the computer-based services are priced in contemporary libraries.

Models based on full or partial cost recovery are considered by many libraries and information centres, even though these, rest on precision of data and information on all costs covered. However in large and complex organisations like libraries and information centres the methods of estimating them are still primitive

The intangible and myriad nature of information services demand multiple pricing policies and methods which are of course in tune with the organisations's goals and objectives. Hence, it should be left to the decision makers to decide which services are to be charged and which are to be distributed freely.

A successful pricing policy and method could be possible only when those who are at the helm of decision-making have profound knowledge about the users/consumers buying the services, buying behaviour of users and the organisation itself and the external market conditions — political, social and economic which influence the decision on pricing.

Research on Evaluation of Libraries

K.A. Radhakrishna*

Evaluation helps in knowing whether the organisation is serving the purpose for which it has been designed. To find out whether an institution is working properly an evaluation of its working conditions, services is essential. Suppose, an information centre has been set up to serve one hundred scientists. After a certain period, an evaluation of the information centre's working has to be carried out to know whether it is serving the scientists properly? Whether the funds have been utilized properly? Can it continue to serve the scientists in the same fashion or is there a need to alter the nature of its services? Is there a necessity to provide more funds to the information centre or have these to be curtailed?

All these and many more questions on similar lines can be raised during the course of the evaluation and suitable answers found. The results of the evaluation normally help an improvement in the service. The evaluation results also help the funding agency or the government body to get to know whether the funds allocated are serving the purpose.

Evaluation of a library should focus on the impact of reading on the user. The library can be evaluated in terms of whether or not it is able to provide the information sought by the users at the appropriate time needed by them. There are three key elements in the evaluation process : the user, the information use and the library itself. Evaluation of a library mainly deals with the study of the interaction of the system with the users to whom it is serving.

Evaluation of libraries helps improving the quality of the service. Libraries are service institutions designed to serve the public. The general public have the right to know what is going on in the libraries. Evaluation is one of the methods through which the public (in case of public libraries) or student community (in case of academic libraries) can be made aware of the service conditions.

Busha and Harter opine that "Librarians have tended to focus more attention on practical problems in the "real world" than they have on theoretical issues"[1]. Because of the pre occupation of the professionals with the practical problems, they tend to select research topics on evaluation of libraries. On the other hand practical problems which cry for solutions may also enthuse a research student to take up evaluation studies.

In India, evaluation of libraries or information centres is usually carried out by research students, who are eager to get their doctorate degrees. "Evaluation of a library" is the most sought out topic by the researchers, and the research guides feel relieved, when the student is assigned a topic under "evaluation". The reason being the easy availability of set patterns. Most of the research in the subject of library and information science has been carried out so far on the topic of evaluation of a particular library or a group of libraries. It is for the simple reason that it is easy to gather information on this particular topic. The student can easily lay his hands on innumerable books, theses, journal papers available easily in his own library or in the libraries situated near his place or at least in Indian libraries. What is needed is conducting a survey and incorporating the results in the body of the thesis.

Evaluation of libraries is however not easy as is described above There is considerable hard work involved One has to go through the innumerable books, theses, papers. More the research, greater the number of publications to wade through, which demands much hard work for the researcher. The survey part is another tough task which takes a lot of student's energy. He has to visit the library at regular intervals or a set of libraries to be evaluated, observe its/their functioning, make notes, engage in an involuntary discussion with staff, users, administrators, funding body etc

Imagine a research topic on "The evaluation of academic libraries in Karnataka". There must be around 500 academic libraries in Karnataka, which include university libraries; medical and engineering college libraries; pharmacy, physiotherapy and nursing college libraries, B Ed and first grade college libraries etc. Imagine the task before an evaluator!. Even paying a courtesy visit and making a preliminary survey must take a minimum of one year A detailed study must take at least a minimum of more than five years i.e if a thorough study is conducted

But hardly such thorough studies are being conducted. Does the evaluator visit all the libraries, which he is supposed to evaluate? Does he personally observe the functioning of these libraries? Will there be proper interview? Does he exercise caution

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and care needed in such evaluations? Is sufficient care exercised while gathering information? The answer to most of these questions is a simple "no" But why? What is the reason for not gathering proper information? Why there is lack of care and caution while evaluating a library? Reasons may be many, the delineation of which needs a separate paper altogether

Most of these evaluations are carried out through the questionnaire method, with the student not even bothering to visit the concerned library even once The questionnaires will be usually mailed to the librarians. These librarians—hapless creatures as they are, burdened with their duties cannot give much time to fill up these questionnaires. They are fed up of filling several pages of such questionnaires year after year Anyhow when the beneficiary of such an adventure does not even bother to show up even once, why should he take extra pains? But take heart, these librarians are good enough to fill up the questionnaires mostly giving exaggerated figures Since these questionnaires are always lengthy, usually one has to take the assistance of a subordinate It is mere fun to watch the method of filling up of these questionnaires.

For example,

Question : Total number of books your library posesses :

Answer : Sir, we have only 10,000 books, shall I put it as 30,000, sir Anyhow, within the next 10 years we are likely to reach that figure

"yes, write, it"

Question : Is your library housed in a separate building?

Answer : Sir, it is not nice to write that our library is housed in a classroom. Let us write that it is located in a separate building, built out of U G C. grants Our management will also appreciate us if we write like this.

Question : How many users visit your library regularly?

Answer : Our college strength is 2000, but hardly around 100 visit the library regularly, that too for chatting after the afternoon meals. We should never give such figure. It will be an insult to our great institution. Shall I put the figure at around 800? It will please the evaluator.

"write it. ."

Question : Are you providing any current awareness services?

Answer : What is this current awareness serv-

ice? "Whatever it may be, we should always write that we provide all types of services. Write that we provide that service also

But of course, there are librarians who answer to the questions properly and provide near perfect figures. But discrepancies are likely to enter the data, if the student does not put in much effort.

Evaluation needs the participation of not only the librarians but also the users, administrators and the funding agencies. Usually questionnaires are sent to the users and administrators also. It helps to know their opinion regarding the library Even this part of administering the questionnaires to the users has to be carried out by the librarians themselves or by any other friend of the researcher. Researcher will mail the bulk of the questionnires to the librarian or to his friend to save his time and money Most of the questions need explanations, but the librarian or the friend hardly has time to do that The friend in question may not even have the basic knowledge of library science and how can he give explanations? But answers will be provided for all the questions. Percentage of researchers who meet the users personally to get the answers is very less

The filled up questionnaires will be received by the evaluator and based on these answers the libraries will be evaluated Based on these evaluations doctorate degrees will be awarded. Even though the presentation, delineation in the theses is proper, there is not much truth in the information gathered Who is the beneficiary of this type of research? Truth may emerge only when the examiner who evaluates the theses personally visits the libraries concerned.

At least in future the researcher student should personally visit the evaluated libraries at least once during the time of the evaluation. Proper information has to be elicited through observation, diary, questionnaire and interview methods. The research supervisor should also insist that the student should often visit the library to be evaluated.

Busha and Harter are concerned about the quality of research studies and the methods used to collect data in the field of library and information science. They say that, "Unfortunately, a large proportion of librarianship's research has been uneven in quality and demonstratively weak methodologically" [2] They advocate the use of scientific methods which can be applied effectively in the field of library and information science.

Many authors are of the opinion that quality of the theses rests solely with the research supervisors.

Savage says, "An incompetent research supervisor produces an incompetent thesis"[3] According to Davinson, "Theses are only as good as the supervisors which they report".[4]

Robert Paul Armstrong is specially critical of the quality of supervision offered to research students He says that, "the quality of a thesis as a serious contribution to knowledge is directly related to the quality of the supervision accorded to the young research worker producing it"[5]. Armstrong feels that properly supervised, excellent work can result from a thesis.

However the onus of collecting proper data rests solely with the research student. A lethargic and incompetent research student may not try to gather correct data. A quality thesis is the concomitant work of both the supervisor and the student

Few authors are aware of the fact that doctorate degrees are being awarded even when the studies have not been conducted properly Robinson reports that,".. , a degree can be conferred after studies of trivial content or indeed after no study at all"[6]

Many of the studies in library and information science field need personal visit and study by the research student. Apart from studies on evaluation of libraries, user need studies, behaviour studies, information use studies etc are few examples for such type of studies needing intense personal study by the student. Such studies cannot be carried out sitting in a four walled room or a library.

At least an earnest effort must be made to collect correct information Only then, the findings reported in the theses will carry real value, based on which decision making agencies can take corrective measures.

But, if the statistics collected and the findings and suggestions are far from truth can any decision be taken based on such recommendations?

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Technology and Development
The Case of Gujarat

Prof. Yoginder K. Alagh, Union Minister of State for Science & Technology and Power, delivered the convocation address at the Fortieth Annual Convocation of Sardar Patel University. He said, "In the late seventies and particularly the eighties the world started moving very fast. It entered what is called the Neo Fordist Era. This was an era of the application of inter-disciplinary technologies. Bio-technology, Electronics, new materials and information and communication revolutions changed the face of the globe. The new technology was scale neutral and could be applied both outside industry to sectors like agriculture, health, education and services and also expanded very rapidly when introduced. The question really is whether we in Gujarat have the wisdom to develop the priorities and the policies for entering this age and giving our own people access to the jobs and the products and the processes of tomorrow." Excerpts

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I propose to speak a few words on the application of technology to developments in Gujarat. In the late 60s when I came to Ahmedabad, it was a principal city of institutions of learning. The IIM, PRL, SAC of ISRO, Attira, School of Architecture and later on the School of Planning, Gujarat University, B M Institute and later the Sardar Patel Institute of Economic and Social Research, all made it a very formidable place. The Universities at Baroda and at Vidyanagar were again other powerful centres of learning and knowledge Gujarat was at that time in the forefront of institution building.

In the late seventees and particularly the eightees the world started moving very fast. I entered what is called the Neo Fordist Era. This was an era of the application of inter-disciplinary technologies Bio-technology, Electronics, new materials and information and communication revolutions changed the face of the globe The new technology was scale neutral and could be applied both outside industry to sectors like agriculture, health, education and services and

also expanded very rapidly when introduced The question really is whether we in Gujarat have the wisdom to develop the priorities and the policies for entering this age and giving our own people access to the jobs and the products and the processes of tomorrow For Gujarat, this is a very important issue since its people are very hard working and industrious and work very well in groups, but the State is limited in terms of physical resources and has a great diversity of land, climate, water resources and biotic and genetic wealth We briefly describe some initial work done in major areas of interest in the Science and Technology field with a view to provide the background for more intensive efforts in the future We have been trying in the last year to bring educational institutions in Gujarat in touch with national science and technology institutions for access to resources and expertise. A beginning has been made which we describe. We must now make an effort to prepare a technology plan and a policy.

Agriculture

Gujarat State has been divided

into seven agroclimatic regions on the basis of topography, rainfall, and soils The same classification is adopted for the purpose of State level planning

Considering this useful documentation of State subregional profiles, issues, potentials and suggested strategies, the State Government had directed all the heads of agriculture and allied sectors to prepare zonewise perspective plans They were asked to utilise information available in documents of the ARPU Project of the Planning Commission of the Sardar Patel Institute at Ahmedabad The line departments of agriculture have prepared State subregionwise broad priorities of land and water resource development and its utilisation and output projections (crop, horticulture, fodder, animal products) by subregion for terminal year of the IX Plan based on agro-climatic conditions and other factors

In order to develop agricultural human resource, the Indian Council of Agricultural Research (ICAR) is providing development grants to the Gujarat Agricultural University Networking in various Regional Centres of Gujarat State and help is given for access to new information and technology. Under NATP it is proposed to have library networking and also support for technology generation assessment, refinement and dissemination for bringing economic benefits to farmers in different agro-ecological regions.

Considering the importance of the groundnut crop in the State, Government of India has established a National Research Centre on Groundnut at Junagarh in 1979 to cater to the needs of the farmers of Gujarat and the entire country. The centre has developed excellent field and laboratory facili-

Regions of Gujarat :

	States Region	ACRP Region	District	Rainfall in mm	Climate	Soils
1.	Southern Hills	13(1)	Dangs, Bulsar	1793	Semi arid dry sub humid	Deep black coastal alluvium
2.	Southern Gujarat	13(2)	Surat, Bharuch	974	-do-	-do-
3.	Middle Gujarat	13(3)	Baroda, Kheda Panchmahals	904	Semi arid	Medium black
4.	North Gujarat	13(4)	Ahmedabad, Gandhinagar, Mehsana, Sabarkantha, Banaskantha	735	Arid to semi arid	Gray brown coastal alluvium
5	North West arid	13(5)	Kutch	340	Arid	Gray brown Deltaic alluvium
6	North Saurashtra	13(6)	Amroli, Bhavnagar, Jamnagar, Rajkot, Surendrangar	537	Semi arid	Medium black
7.	South Saurashtra	13(7)	Junagadh	844	Dry Sub	Coastal alluvium,

The prioritisation of strategies suggested for the subregions can be seen from the following table :

	Thrust Area	State	Priorities by Regions						
			1	2	3	4	5	6	7
1.	Soil, and Water Conservation	1	1	3	3	1	1	1	1
2.	Investment of Canal Irrigation Management	2	7	1	1	6	—	—	—
3.	Irrigation Development	3	2	2	2	2	5	2	2
4.	Crop Improvement	4	8	5	4	4	4	3	3
5	Horticulture Development	5	3	4	5	3	3	4	4
6.	Waterland Development	6	4	6	6	4	2	4	4
7.	Livestock and Dairy Development	7	5	7	7	5	5	5	5
8.	Fishery Development	8	6	7	7	6	6	6	6

ties, and good scientific staff to attend to the problems of groundnut. But the groundnut yields of the State are still very low.

Castor is another important crop which is grown in about 3.8 lakhs hectares in the State and produces about 60-70 per cent of the total castor in the country In the export of castor, Gujarat stands as number one State in the country. Government of India through Indian Council of Agricultural Research is extending full support for the research and development of castor in the State. In an era of open global market the State can play an important role through capitalising on the world market of castor export. The Technology Development Board of the Ministry of Science and Technology is finalising a grant of Rs 3.33 crores to a private company for manufacturing Undecenoic Acid and its derivates in Mahesana, based on a technology development by the Indian Institute of Chemical Technology. More "value addition" projects in agriculture are required.

Gujarat is a very important State as far as horticultural crops are concerned. Major crops are mango, sapota, banana, date-palm, ber, pomegranate, acid lime, vegetables, potato, tuber crops, coconut, seed spices and medicinal & aromatic plants. The Indian Council of Agricultural Research has established a National Research Centre on Medicinal & Aromatic Plants at Anand to carry out researches on various aspects of the mandate crops. The Central Horticulture Experiment Station located at Godhra, is working mainly to promote suitable horticulture technology for the tribal population and concentrating its efforts on arid zone fruits like ber, pomegranate, aonla and vegetables. A number of research centres are located in different parts of

Gujarat under the All India Coordinated Research Project on horticultural crops of ICAR, namely

1 Tropical Fruits — Gandevi
2 Sub-tropical Fruits — Paria
3 Arid Zone Fruits — Sardar Krushi Nagar, Mundra
4 Vegetables — Junagarh
5 Potato — Deesa
6 Tuber Crops — Navsari
7 Spices — Jagundan
8 Medicinal & Aromatic Plants — Anand

Some major research achievements in horticultural crops have been in ber (Gola, Dandan and Rashmi are early bearing varieties; whole Umran, Seb and Aliganj are late) Sapota (Kalhipati), Mangoes (Rajapuri and Kesar) Aonla, Guava and pomegranate In potato, split application of potash was found to be beneficial in medium textured soil

The Gujarat Agricultural University and the various agricultural colleges in the State have made major efforts in agricultural research and expansion However, as the recent strategic papers of the National Agricultural Technology Project, and the Agro-Climatic Project show, while the agricultural economy of the State is diversifying, its research potential both for achieving challenges of agriculture in the WTO era and in terms of the challenges of sustainable development in the diverse land and water regions of the State need greater incentives for the integration of agricultural research institutions with the commercialisation process.

Biotechnology

In the field of bio-technology, the NDDB, Gujarat Agricultural University, Sardar Patel University, M.S University of Baroda and the Central Salt and Marine Chemical Research Institute at Bhavnagar are doing research for about Rs. 10 crores sponsored by

the Department of Biotechnology. In addition, projects worth around another Rs. 6 crores are under consideration. A programme for strengthening food biotechnology research and training has been approved at the Sardar Patel University and I hope it will be sanctioned this year. The Gujarat University at Ahmedabad is starting a MSc, Biotechnology programme and a Biotechnology Village is being started at Mocha near Porbander with which a number of institutions in that area would be associated. There are important projects in the area of animal husbandry, friendly pesticides and bio-fertilizers In the medical area, an anti leprosy vaccine has been transferred to Cadilla as also an HIV diagnostic kit for perfection of the available technology. The Technology Development Board is also considering a pilot plant for vaccine manufacture at Cardilla.

We should however see all this as a beginning. It is my view that the role of biotechnology in the fruit and horticulture economy of the State, in the development of grasses and for herd management of its great cattle wealth, and in the modernisation of its drug and chemical industries has just made a beginning. These are all areas in which we need much larger cooperation from industry, co-operatives and farmers associations and the Universities have to play a much bolder role. We have to use the available resources from the Government of India and ask for more resources in this area.

Electronics

In the electronics area, the Government of India have set up a Software Technology Park at Gandhinagar. STPI Gandhinagar provides services to 100 per cent software exporting units to the

Enrolmer

B.Ed./B.T

State/Union Territory	Boys	Girls	Total	Scheduled Caste			Scheduled Tribe		
				Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	4390	3351	7741	567	453	1020	181	45	226
Arunachal Pradesh	29	6	35	0	0	0	21	4	25
Assam	1584	968	2552	204	87	291	193	145	338
Bihar	1348	902	2250	142	47	189	102	180	282
Goa	45	166	211	0	0	0	0	0	0
Gujarat	3050	1800	4850	380	150	530	350	200	550
Haryana	1556	1830	3386	253	111	364	0	0	0
Himachal Pradesh	245	80	325	55	11	66	10	4	14
Jammu & Kashmir	502	494	996	26	10	36	0	0	0
Karnataka	3652	2581	6233	399	110	509	141	33	174
Kerala	830	2858	3688	172	295	467	4	15	19
Madhya Pradesh	3187	2547	5734	410	89	499	107	52	159
Maharashtra	27643	10518	38161	2739	932	3671	871	315	1186
Manipur	140	121	261	2	1	3	40	5	45
Meghalaya	155	303	458	1	1	2	64	135	199
Mizoram	121	28	149	0	0	0	110	27	137
Nagaland	47	30	77	0	0	0	29	24	53
Orissa	1232	698	1930	173	77	250	146	46	192
Punjab	834	2960	3794	181	346	527	0	0	0
Rajasthan	4381	2842	7223	986	175	1161	558	41	599
Sikkim	0	0	0	0	0	0	0	0	0
Tamil Nadu	1133	2078	3211	242	281	523	8	2	10
Tripura	254	65	319	126	17	143	39	11	50
Uttar Pradesh	9990	7583	17573	1320	275	1595	27	17	44
West Bengal	5020	4213	9233	470	42	512	31	9	40
A & N Islands	15	39	54	0	0	0	0	1	1
Chandigarh	74	408	482	24	26	50	5	5	10
D & N Haveli	0	0	0	0	0	0	0	0	0
Daman & Diu	31	36	67	4	1	5	11	7	18
Delhi	279	541	820	21	54	75	10	2	12
Lakshadweep	0	0	0	0	0	0	0	0	0
Pondicherry	66	206	272	5	42	47	0	0	0
India	71833	50252	122085	8902	3633	12535	3058	1325	4383

Source · Selected Educational Statistics 1995-96, Planning, Monitoring and Statistics Division, Department of Education, Ministry of Human Resource Development.

Stages — 5

M.B.B.S./Ayurved

State/Union Territory	Boys	Girls	Total	Scheduled Caste			Scheduled Tribe		
				Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	4319	3514	7833	602	484	1086	289	143	432
Arunachal Pradesh	0	0	0	0	0	0	0	0	0
Assam	1667	631	2298	119	45	164	239	89	328
Bihar	12565	1547	14112	1085	205	1290	325	147	472
Goa	328	326	654	12	8	20	0	0	0
Gujarat	1172	667	1839	46	21	67	11	5	16
Haryana	1223	986	2209	170	80	250	0	0	0
Himachal Pradesh	422	227	649	70	20	90	34	6	40
Jammu & Kashmir	836	634	1470	56	36	92	0	0	0
Karnataka	5324	1964	7288	0	0	0	22	7	29
Kerala	2108	1259	3367	139	129	268	20	22	42
Madhya Pradesh	3290	1450	4740	405	126	531	253	103	356
Maharashtra	14677	11738	26415	1481	1186	2667	432	236	668
Manipur	308	100	408	12	0	12	166	65	231
Meghalaya	0	0	0	0	0	0	0	0	0
Mizoram	0	0	0	0	0	0	0	0	0
Nagaland	0	0	0	0	0	0	0	0	0
Orissa	2289	517	2806	210	84	294	180	97	277
Punjab	1654	1710	3364	334	192	526	2	2	4
Rajasthan	2607	1410	4017	0	0	0	0	0	0
Sikkim	0	0	0	0	0	0	0	0	0
Tamil Nadu	6563	4753	11316	853	617	1470	0	0	0
Tripura	0	0	0	0	0	0	0	0	0
Uttar Pradesh	5318	1592	6910	159	22	181	40	1	41
West Bengal	2812	958	3770	313	35	348	12	3	15
A & N Islands	0	0	0	0	0	0	0	0	0
Chandigarh	0	0	0	0	0	0	0	0	0
D & N Haveli	0	0	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0	0	0
Delhi	2245	1853	4098	245	224	469	12	26	38
Lakshadweep	0	0	0	0	0	0	0	0	0
Pondicherry	612	275	887	80	56	136	0	0	0
India	72339	38111	110450	6391	3570	9961	2037	952	2989

(Concluded)

19

State of Gujarat. Currently 48 units have been approved by the Government out of which 14 units have already commenced their operation. The remaining units are in the various stages of setting of their operation. 11 Units are presently contributing to the exports. So far STPI Gandhinagar on a cumulative basis have contributed exports of nearly Rs. 800 lacs.

High Speed Data Communication (HSDC) facility is the lifeline of offshore Software Development operations. And accordingly STPI Gandhinagar has been equipped with F3 IBS (Intersat Business Service) Earth Station which acts as an International Gateways. The local access to the international gateways is provided through line-of-sight, point to point CDMA link or through point-to-multipoint TDMA link, depending on the topology of the users premises thus providing 100 per cent reliable data communication facilities For the units utilising incubating infrastructure, the HSDC facilities are accessed through the Local Area Network (LAN) based on 10 VASET (IEEE802.3) The earth station is having 9.2 meter dish antenna looking to 64-degree east INTELSAT satellite on IOR (Indian Oceanic Region).

The following services are offered to the users :

Soft POINT : a leased channel digital point-to-point service.

Soft LINK : A TCP/IP based multivendor network providing access to internet. The value added services including E-mail, remote Log-in, database Access, WWW etc.

Soft CONF : Two way video conferencing with full motion picture quality video.

The present HSDC facility is upgradable with incremental investment in requisite hardware to the carrier sizes of 2 Mbps. Progress in use of this infrastructure is slow Software export in India will almost double to $ 2 billion this year. Growth is 60 per cent plus annual. We must ask for doubling the existing facility, after quickly using up the existing infrastructure. Many more units must be set up in Gujarat providing employment to the skilled professional at their door steps. STPI are targeting for ten times growth of the export revenues by the turn of this century. Gujarat must quickly use the existing facilities and ask for expansion. Our progress in this area is slow. Universities must enter this training and research field.

Testing Facilities and Scientific Research

The Department of Science and Technology is finalizing a proposal for the setting up of a Regional Sophisticated Instrumentation Centre for Applied Research and Testing at Vallabh Vidyanagar. The project is estimated at Rs. 7.2 crores. It has been cleared technically and will get financial clearance now. This will establish for the first time a regional facility to help the local industries carry out applied research and also provide for testing and calibration In addition the Department of Scientific and Industrial Research has approved specific product development projects of Rs. 4 crores and the Department of Science and Technology projects to the tune of another Rs. 2 crores. We must develop a full Science and Technology Plan for the State.

Training

There are a large number of initiatives being taken for private investment in technology educa-

tion and we always try to help in Delhi to push our projects with the All India Council of Technology Education. However, they do not seem to be integrated into a well defined programme of training and development.

It may be noted that about 80 per cent of the personnel engaged in modern areas like Software and Information Technology are not electronic engineers. They receive inservice training and training in specialised programmes. The Department of Electronics Accreditation Courses Committee (DOEACC) has now self programming CDs with which the students can himself achieve the training to get an O level certificate. We need very rapid expansion of these training and research technologies.

Ocean Development

Gujarat has a long coastal line and interesting opportunities and threats to its environment It has a strong fishing industry and an industry based on coastal minerals. It has many ports which are expanding rapidly. The Department of Ocean Development of the Government of India is very seriously interested in Gujarat's Ocean Development

Bhavnagar University, Bhavnagar is one of the 5 universities which will be taken up in the first phase, for establishment of an Ocean Science and Technology Cell (OSTC) in the area of Marine Coastal Ecology (West Coast) The University's proposal of Rs. 615 lakhs for starting the Cell is being finalised by the Department. A Management Board under the chairmanship of Vice Chancellor shall organise, monitor and guide the Cell in implementing the scheme in the University. A MoU is under finalisation.

The Department of Ocean Development is also undertaking

a Project on Integrated Coastal and Marine Area Management (ICMAM) to carry out the Capacity Building activities relating to the development of model ICMAM Plans for three sites, one of which include Gulf of Kutch. Under this project, detailed investigations on various environmental problems which affect coastal and marine areas of Gulf of Kutch will be analysed and integrated management solutions will be evolved. These solutions along with various other features will be reflected in an integrated Coastal and Marine Area Management Plan. Preparation of such plans will help minimise adverse impact of activities on environment, reducing the conflicting use of coastal and marine areas and promote sustainable development in the region The task of preparation of the Plan will commence from 1998-99 and is likely to be completed by March 2001 The preparation of such a Plan is estimated to cost Rs. 1 2 crores Nearly 80 per cent of the funds will be provided by the World Bank in the form of an International Development Association assistance.

Conclusion

I strongly believe that educational institutions will have to be supported in a big way to strengthen the pace of human resource generation, skilled manpower for catering to the requirements of not only education and research but industrial development and societal application of science and technology. There are enormous opportunities in science and research The State needs to develop this area very carefully.

The most crucial areas which will not only help the developments in the State but would contribute significantly towards national development are :

(i) Information technologies;

(ii) New materials including the bio-degradable ones;

(iii) Biotechnology or one can even say eco-friendly technologies through bio-route with applications to agriculture, animal husbandry health, pesticides and fisheries, and

(iv) Service for oceans and water development.

These areas would be the front runners when we move into the next millennium.

A few concerns, each needing our attention immediately, must be addressed,

i) Multi institutional integration to be strengthened to achieve excellence both in basic and applied research pertaining to such areas which are of immediate relevance to the economic development of the State

ii) Confidence building towards one another among industry, academic and research institutions and Government, and much greater priority for research and training by industry and Government.

iii) Adaptation of technologies to meet the user needs, their practices and local area resources

iv) Application of appropriate technologies and the developing processes to overcome the conventional infrastructure.

v) Re-orientation of science and technical education to make it immediately professionally useful and competitive.

vi) To attract young talents to the study of science in the face of increasing competition for talent in other sectors of economy.

vii) Updating the infrastructure facilities in the academic and

other institutions for study of science and also reorient science education considering inborn environment of the students.

viii) Application of science and technology to improve quality of life and inculcate scientific temper creating awareness on ecology, environment and health related issues.

ix) Forecasting technology needs and correspondence disciplines in education curricula to meet the emerging challenges of competitiveness.

I have summarised these concerns as an exercise for all of us so that while we take on to develop our future plan strategies, we keep these concerns in mind and do our best, with the close co-operation of the State and the Centre, to bring about optimum results through the application of modern Science and Technology in a much more purposeful way in the emerging competing markets and economies.

Emerging Trends in Higher Education

The task of accreditation of courses in higher educational institutions should be entrusted to a body of professionals drawn from various fields, said Dr. S. Muthukumaran, member secretary of the Tamil Nadu State Council for Higher Education and former Vice-Chancellor of the Bharathidasan University. He was delivering a lecture on 'Emerging Trends in Higher Education' at the Vellore Engineering College (VEC) in Vellore recently. He said accreditation given today to courses in higher educational institutions was not proper as it was done by a non-professional body Unless the accrediting body was made up of professionals, who were not from the government, the accreditation could not be considered authentic

In the western countries, those pursuing higher education constituted 20 to 50 per cent of the youth in the age group of 16-20 years, whereas in India they constituted only five per cent of the population. The remaining 95 per cent could not pursue higher education mostly because of the lack of opportunities. But, the Government was no longer interested in starting higher educational institutions. Under the circumstances, expansion of educational opportunities could come only from the private sector. The Government could selectively subsidise education and provide loan scholarships to deserving students instead of financing educational institutions.

He wanted the Government to facilitate engineering graduates to become self-employed in view of the limited job opportunities in

medium and large scale industries. Only 15 per cent of the engineering graduates joined medium and large industries, while the remaining 85 per cent were forced to stand on their own legs The Government would, therefore, have to support the 85 per cent of engineering graduates by providing the facilities required by them to set up their own industries.

Courses tailor-made to suit those opting for employment abroad, especially the West Asian countries, should be started in India so that these graduates could easily find employment in those countries. He regretted that though the process of granting autonomy to colleges started 20 years ago, its pace was much slower than that of granting recognition to affiliated colleges

He advocated vast educational complexes where education was imparted right from the kindergarten to the doctoral level as in the case of the Sri Avinashilingam Home Science College (Deemed University), Coimbatore and the Central Polytechnic Campus in Chennai.

Mr. G. Viswanathan, chairman, VEC, who presided, wanted the All India Council for Technical Education (AICTE) to categorise the technical institutions for the purpose of granting recognition to new courses. At present, technical institutions had to face three hurdles : the need to get a no-objection certificate from the university under whose jurisdiction it is, the need to get the approval of the Directorate of Technical Education (DTE) and lastly the need to get the approval of the AICTE.

He wanted the AICTE to categorise technical institutions based on the infrastructure facilities available and the quality of education in order to quicken the process of granting approval to new courses to institutions with well-established facilities. He wanted the State Council for Higher Education to come out with a solution to the problem.

Dr V.N. Vedamurthy, Principal, VEC, wanted the government to encourage the setting up of private universities in keeping with the increasing role played by the private sector in education today and the increasing preference of candidates for self-financing institutions right from the school to the college level

He wanted the government to introduce a flexible management system in education which enabled an engineering undergraduate in one discipline to get an additional degree in another by undergoing one more year of study.

Technology Management Programmes at IIT-Delhi

The Department of Management Studies of the Indian Institute of Technology, Delhi has been catering to the growth and importance of management in the professional world. Over the years, the department has been covering certain aspects of management for M Tech and B.Tech students apart from conducting a full-fledged M.Tech programme in management systems. With the changing economic scenario and the boom in information technology and telecommunications, last year the department introduced a full-time as well as a part-time MBA programme.

The two-year full-time programme focuses on management systems and the three-year part-time programme on technology management. Though the core areas of study revolve around systems and technology management, the programme offers dual specialisation in any of the conventional areas of management specialisation such as marketing, finance and HRD.

"The need for systems and technology management has grown because of the expected growth and investment in information technology and plant setups. Now, even MNCs have started to set up R&D centres in the country. Besides, it's not only managing technology, it's also about managing turnkey projects," said Prof. Sushil, head of the department

"It is the demand of the industry for technology and systems managers who understand technology and not just management functions and operations. In fact, most of our feedback has come from our alumni," added Prof. Sushil.

Mr. Rajendra S. Pawar, Vice Chairman and MD, NIIT Ltd., an alumni who has been closely associated with the development of the programme, said that the cross-fertilisation of a management school within IIT would help significantly. He also stressed the need for developing linkages with the industry, not only to make them aware of the existence of such programmes but also for some sponsored research work.

Prof. Sushil said, "We are trying to widen the base of the students by incorporating industry-oriented projects as part of the course curriculum apart from the regular summer training programmes. In fact, we lay stress on

the synergy of analytical and creative skills for effective management functioning and problem solving. Being primarily focused on systems and technology management, students are channelised into holistic thinking rather than concentrating only on business feasibility."

The programme is open to B Techs, and masters in economics, statistics, commerce, operations research, computer sciences or physical sciences Justifying the eligibility criteria, Prof. Sushil explained, "We are not just about conventional management, though it is part of our curriculum. Our thrust areas are in technology-related spheres, where a thorough mathematical knowledge is not only helpful but also essential "

The department enrols 60 students for the systems management and an equal number of students for the technology management programmes Students are selected through an objective written test, group discussion and interview.

Refresher Course in Commerce

The Academic Staff College of Himachal Pradesh University recently conducted a 3-week Refresher Course in Commerce. 43 participants from the states of Maharashtra, Madhya Pradesh, Rajasthan, Andhra Pradesh, Haryana and Himachal Pradesh attended the course.

Inaugurating the Course Prof. M K. Sharma, Vice-Chairman, International Institute of Management Studies, Himachal Pradesh University, emphasized that commerce education was a vital part of our society and all the organizations including political parties, religious organizations, institutions and business organizations

required expertise in management. He stressed that the commerce education should not be restricted to Accounting and Finance only but the need of hour was to make it inter-disciplinary with economic, management and computer applications. New technologies which were coming up world wide should be adopted, he added.

Prof. Yoginder Verma, Director, Academic Staff College, said that the Academic Staff College of Himachal Pradesh University always selected topics of contemporary relevance enabling teachers to equip students to seek suitable careers. Highlighting the utility of inter-disciplinary perspective in the prevailing situation, Prof. Verma explained the rising necessity for changing the curriculum and methodology of teaching.

The topics deliberated during the programme included : Business Environment, Management in 21st Century, Computer Applications in Business, Globalization, Liberalization, Privatization, Finance, Accounting, Laws relating to Business and Consumers, etc. The participants were made aware of latest techniques and aids used in the teaching like audio-visual aids, OHP, etc. Resource persons with expertise in different fields interacted with the participants. Besides rich academic input, insights from practice including bureaucracy, banks, army, politics and business were also shared. Certain innovative methods such as group work, participants presentation, think tank, multi-quiz, etc were utilized.

Sh. S.C. Roy, Director of Education, Himachal Pradesh, in his valedictory address, appealed the participants to do full justice with their profession. The dignity of teachers needed to be restored

which was possible only when they felt confident and professionally competent, he emphasized.

Education Framework in Indian Context

The decline in budgetary allocation for higher education since the seventies was causing concern among academicians and there was an urgent need for private organisations to enter the education scene, said Dr. N. Rudraiah, Senior Scientist, Indian National Science Academy, Bangalore. He was inaugurating a three-day UGC-sponsored national seminar on 'Framework of Education for the Indian Context', hosted by the St. Joseph's College in Tiruchi recently. He pointed out that the allocation for higher education had come down from an all-time high of 25 per cent in the IV Five-Year Plan to 8 per cent in the VIII Plan. This was despite the rapid growth of colleges and universities in the country. Starting with just 25 universities and 700 colleges with 2 lakh students in 1947, there were today 231 universities and 9,300 colleges with 65 lakh students on their rolls.

Though the country had a sound education system, it was plagued by functional and infrastructure problems and hence, the goal of eradicating illiteracy had not been achieved. The primary, middle and high school system was not congenial to attract poor students to school despite populist schemes. Many schools lacked basic infrastructure such as classrooms and blackboards, he regretted and suggested that social and corporate organisations could be encouraged to fill the gap.

The government should make education free up to the X standard, after which students should be encouraged to take up vocational courses based on their apti-

tude. Only the best students should be allowed to pursue a higher education, he felt. Further, reservation should be limited to the minimum level required to fulfil Constitutional obligations so that bright students were not denied admission to courses of their choice. Calling for revamping of the education policy to suit the needs of the rural poor, he felt that they should be encouraged to take up non-formal education.

Dr. N. Markandan, Vice-Chancellor, Gandhigram Rural University, regretted that education which was a tool for social change had failed to achieve this objective even after 50 years of Independence Reforms had failed as recommendations made by innumerable committees set up by the government had not been properly implemented. The government educational institutions had failed to make their curriculum meaningful and value-based.

He regretted that budgetary support for primary education was meagre and stressed the need for more allocation since education formed an important part of development.

Dr. C Thangamuthu, Registrar, Bharathidasan University, called for a change in the mindset of academicians and a curb on the establishment of more affiliating apex bodies Though academicians were aware of the problems in the system, changes could not be introduced because of lack of freedom, he said.

Vocational Education in Punjab

The Punjab Chief Minister, Mr Parkash Singh Badal is reported to have set up a high-level committee of eminent experts from the field of education, vocationalisation and social volun-

tary service under the chairmanship of Prof. Amrik Singh, the former Vice-Chancellor of Punjabi University, Patiala, to chalk out a comprehensive blueprint on vocational education in Punjab by making an indepth study of the changing needs of the society and ascertaining the requirements of the youth living in the countryside.

Presiding over the high-level meeting of experts in the field of education, technical education, industrial and agricultural sector held in Chandigarh, the Chief Minister said the standard of education at the grassroots level was pitiable and the present system led to unemployment and frustration among the youth. Some drastic measures were, therefore, required to make the education system a job-oriented one and well-equipped forum for generating more avenues of employment for our youth, he added.

He emphasised that existing engineering institutions must undertake short term courses for imparting technical knowhow and skills to the youth to enable them to undertake various self-employment ventures which would help eradicate unemployment and contribute towards a productive economy.

Mr. Badal said the 21st Century would bring in more challenges to the youth and living in a rapidly changing world would be increasingly difficult and complex. He stressed the need to prepare the youth to cope with new responsibilities to meet the exigencies in the next Century.

Mr Badal expressed concern that a majority of the youth after completing their academic studies wander around in search of white collar jobs and remained unemployed or under employed. He

was in favour of a survey to identify the courses to be introduced in particular schools. The teachers working in these schools should be re-oriented and re-trained for imparting vocational training to the students.

Expressing concern that no sincere efforts had been made towards vocationalisation of education, Mr. Badal said the foreign countries witnessed rapid advancement because only 20 to 25 per cent students opted for higher education while the rest opted for technical education and self-employment ventures. He advocated a change in the education system which must concentrate on producing skilled manpower, he added.

Mr. Badal also emphasised the need for a link between industry and education so that trained persons produced by schools could benefit the industrial sector.

Mrs. Upinderjit Kaur, Minister Technical Education, said the vocational wings of the department which were available in 345 schools should be shifted to technical education department as it had a well-built infrastructure to impart vocational training to the youth.

Prof. Amrik Singh, stressed the need for conducting a survey of the State to know the percentage of students opting for higher education and technical education. He said a survey of the industrial units should also be conducted to know the requirements of industry so that the youth of the particular area were trained accordingly. He stressed participation of women in productive ventures.

Prof. Rinpoche — President AIU 1998

Prof. Samdhong Rinpoche, Director, Central Institute of Higher Tibetan Studies (Deemed University), Sarnath, Varanasi, has taken over as the President of Association of Indian Universities for the year 1998. Born on 5th November, 1939 at Nagdug Village, Kham Province, Tibet, Prof. Rinpoche is a fully Ordained Monk (Bhikkhu Mahathero).

Prof. Rinpoche had his education in Tibet and India. He obtained the degree of *Rabjampa* in Buddhist Philosophy from Drepung Monastery, Lhasa, Tibet (1951-59). He did his Doctorate, *Geshe Lharampa* from the re-established Drepung Monastery in India (1959-68). He passed the *Geshe Ngagrampa* degree from the re-established Gyuto Tantric Monastery, Dalhousie (HP) (1968-70) He has been Professor of Buddhology & Tibetology since 1971

A pragmatic educational administrator, Prof Rinpoche served as Principal, Central School for Tibetans, Dalhousie (1965-70) and Central Institute of Higher Tibetan Studies, Sarnath, Varanasi (1977-88). Since July, 1988, Prof. Rinpoche has been Director of the Central Institute of Higher Tibetan Studies when it was declared a deemed to be university.

A renowned scholar, Prof

Rinpoche was the National Lecturer of the Indian Council of Philosophical Research, New Delhi during 1994-95. He has been the General Editor for entire range of publications of the Central Institute of Higher Tibetan Studies since 1972 and has to his credit over 60 original articles in various academic journals.

Prof. Rinpoche is the Adviser of the World Peace University Institute for Asian Democracy, and Global Education Associates, USA. He has been a member of the Council/Governing Body/Board of Management of the Indian Council of Philosophical Research (for 2 terms), Asiatic Society, Calcutta (for 3 terms), Sikkim Research Institute of Tibetology, Gangtok (for 2 terms), and Nav Nalanda Mahavihara, Nalanda, Bihar and Central Tibetan Schools Administration. He is Vice Chairman of Library of Tibetan Works & Archives, Dharamsala, Kangra and Trustee Member of Foundation for Universal Responsibility, New Delhi and Norbulinka Institute, Sidhpur, Dharamsala.

Prof. Rinpoche brings to his new office wide scholarship and varied experience in educational administration. We wish him a very satisfying term as President of Association of Indian Universities.

News from Agricultural Universities

Chaudhary Charan Singh Memorial Lecture

The Chaudhary Charan Singh Haryana Agricultural University (CCSHAU) has instituted an annual series of Chaudhary Charan Singh Memorial Lectures from the current golden jubilee year of independence of India. The university also proposes to start

Chaudhary Charan Singh Memorial Chair on Human Resource Management in Agriculture. This was announced by Prof. J B. Chowdhury, Vice-Chancellor, CCSHAU while presiding over the first Chaudhary Charan Singh Memorial Lecture, organised to commemorate the memory of the late Prime Minister, Chaudhary Charan Singh. Paying homages to the great kisan leader, the Vice-Chancellor reiterated that the university would continue to work for the rural and agricultural development on the guidelines as laid down by the late Prime Minister

Dr. Chowdhury advocated that for the faster growth of agriculture, productivity growth needed to be targeted based on priority settings and research prioritisation on principles laid down by informal agricultural economists like Chaudhary Charan Singh. He said that agricultural sector continued to serve as major source of employment in India and as the ratio of arable land to agricultural population had reduced to almost 0 12 hectare, the efficiency of inputs and human resource needed to be improved within the budgetary constraints in the research organisations

Dr. Y.K. Alagh, Union Minister of State for Science and Technology and Power in his lecture entitled "Agricultural Policy in the Ninth Plan, spoke at length on technology for agriculture improvement, policy reforms for substainable agriculture, agriculture land and work force and commercial policies. Expressing concern over the scarcity of arable land which would be the acute feature of Indian agriculture and rural economy, Dr. Alagh called upon the scientists to suggest judicious use of land and water. He

said that the growth that was recorded in arable land in early period of planning had become stagnant in the current decade Hence in order to sustain the growing and well diversified economy in the future, it was necessary to evolve technologies relevant to

different agro-climatic regions. Dr Alagh laid emphasis on production of improved seeds, judicious use of land and water, fabrication of new implements as also imparting functional literacy skills to the farm population.

News from UGC

Countrywide Classroom Programme

Between 20th and 26th January, 1998 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 7.15 to 8.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 7 00 a m. four days a week i e on Tuesdays, Thursdays, Saturdays and Sundays. On DD2 University Video Lecture Courses will be shown at midnight between 0000-0030 hrs and in the morning between 10-10 30 a.m. on Monday through Friday

Hindi Programmes are being telecast on Mondays, Wednesdays & Fridays from 6.00 to 6 30 a.m.

20.1.98

"Paleo Climate-1 : A Global Perspective"

"The Hindu Temple Sikhara-1"

"Gene Bank for Medicinal & Aromatic Plants"

"What on Earth are We Doing?"

"We the People-12 : The Judiciary and the Human Rights in India"

"Approximation to Binomial distribution-2"

"Women in Profession Women Entrepreneurs-3"

"Operation Kaiko"

UVLC

"Social Change"

"Elementary Integration and Applications-6"

21.1.98

"Trout Culture in Kashmir"

"We the People-13 · The Constitution and the Indian Future"

"Application of Electrical Conductivity Measurement in Solution"

"Judiciary — The Pillar of Democracy"

"Gothic Lore-2 · Fiction"

UVLC

"Problems and Care of the Aged"

"Introduction to Oceanography."

22.1.98

"Oxygen-2 : Vital Yet Deadly"

"It Moves, It's Alive"

"How Indian is English-2"

"Question Time-50"

"Basic Education"

"Human Rights and Indian Constitution-1"

"Why Swim At All?"

"Perspective on Mountain

Tourism Badrinath Zone-1 :
Tourism Resources"

"Chronicles of the Postage
Stamps"

UVLC

"Social Impact of Colonial
Rule"

"Pricing of Public Goods"

23.1.98

"Introduction to Scuba Div-
ing"

"Human Rights and Indian
Constitution-2"

"Understanding Cinema-14 :
Scene analysis (Our Daily
Bread)-1"

"Libraries in Australia"

UVLC

"Thinking Processes"

"Auditor's Qualifications and
Removal"

24.1.98

"Studies on 1995 Total Solar
Eclipse"

"The Three Dimensions of
Health"

"Climate Simulation . Predic-
tion of Global Change"

UVLC

No Telecast

25.1.98

"Science Behind Miracles-2"

"Sun and Salt"

"Citizen's Identity Passport"

UVLC

No Telecast

26.1.98

"The Silver Beater"

"Mobius Band"

"Glimpses of India : Sym-
phony in Stone — Halebid &
Belur"

"Dinosaurs in Gujarat"

"Non-Verbal Communica-
tion-2"

"Modern Poetry-3 : Poetry of
the City"

UVLC

"Advent of New Political
Power from the North-West"

"Receptor and Sense Organs-1"

Hindi Telecast

प्रातः 6.00 से 6.30 बजे तक

21.1.98

"तुलसी"

"मस्तिष्क मृत्यु"

23.1.98

"तमिलनाडु का अभिलेख संग्रह : एक
अनमोल खजाना"

"जल प्रदूषण : एक समस्या"

26.1.98

"साक्षरता"

News from Abroad

Higher Education and Social Conscience

The Seventeenth Interna-
tional Seminar on Staff and
Educational Development
(ISSED) will be held on 5-8
June 1998 at Scranton, Pennsyl-
vania, USA. The saminar is
sponsored by The University
of Scranton and Vrije Uni-
versiteit, Brussel in association
with H+E Associates, Norfolk,
England The theme of the
seminar is : Higher Education
and Social Conscience.

The topics proposed to be
discussed include (i) *Preserv-
ing, Critiquing and Changing So-
cial Culture* — Teaching values
across the curriculum; Promot-
ing ethically sensitive research
and scholarship; Defining
higher education's role in cul-
tural change; Higher education
and societal transformation;
Higher education and values in
the "global village", (ii) *Work-
ing with Industry, Business and
the Community* — Promoting in-
creased community and busi-
ness outreach and access; De-
fining higher education's role
as a change agent of business;
Promoting partnerships be-
tween higher education and
business for social change; Pro-
moting ethically sensitive con-
sultancy; (iii) *Renewing the
Structure of Academe* — Creat-
ing value-friendly institutional
structures; Balancing the
claims of educational service
and economic survival; En-
couraging the "green" institu-
tion, Changing the mind-set of
university management; Creat-
ing values-driven strategic
planning; (iv) *Taking Staff/Fac-
ulty Development Seriously* —
Defining the role of values in
staff development; Instituting
serious staff development ini-
tiatives in universities; Train-
ing higher education lecturers;
Evaluating faculty (teaching
staff) performance; Quality
and staff development; Devel-
oping staff developers.

Further details may be ob-
tained from Dr. Chris deWinter
Hebron, H+E Associates, 12a
Church Street, Stiffkey, Norfolk
NR231QJ, England. OR Prof.
Val Kosky, ISSED, Box 907,
Gouldsboro, Pennsylvania
18424 USA.

Knowing Peoples Information Needs

B.S. Nigam*

M. Satyanarayana. Public Library and Community Analysis, New Delhi, Reliance Publishing House, 1997. Rs. 295/-.

Importance of information for better planning is undisputed. It is more important when immediate results are expected from the unit of development. Proper information about the populance of the developmental unit is a must for bringing economy and quality in the development which has to serve the peoples informational requirements. The populace of the public library generally represent all types of people from all walks of life. The rich, the poor, educated and illiterate, the children and the old, readers and the watchers, every field of life is witnessed in a public library. But while the public libraries are established, no proper information requirement survey of the community is done. The result is that the collection development and services remain far from the objectives of the library.

The Unesco Public Library Manifesto 1972 has termed public library as a living force for education, culture, and information and as an essential agent for the fostering of peace and understanding between peoples and between nations. For achieving these objects, the society, community and the individuals ha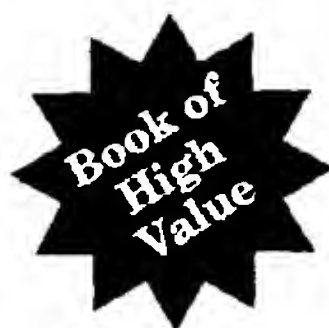ve to be understood properly. Delhi Public Library System on which the reviewer of this book did his Ph.D., found that no proper research was conducted before or after launching this promising project in Delhi. The book under review throws light on such important issues which are directly related to the community research and public library.

The book covers exhaustive data on various aspects of the community, and its requirements of a public library. The experimental research covers an area of 78.33 Sq. Kms. of District Visakhapatnam. The local self government under the jurisdiction of Visakhapatnam Municipal Corporation is responsible for the District Central Library. As many as 600 respondents which include 150 as deposit holders, 150 as visitors, and 300 as non users were either interviewed or data was collected through organised questionnaire. The data is analysed properly and presented in a very attractive and intelligent manner. Tables, and other methods are used for presenting the data.

The best part of the book is chapter V i.e. Public's information needs. Different conceptions about information needs, desires, wants etc have been clarified. The peoples information needs have been divided into two parts. The common needs include consumer goods, housing and transport, education, medical system, employment, family welfare etc. The second part includes problems related with the professional and occupational areas.

Visakhapatnam District Central Library has been the focus of the experiment. The activities of the public library, its types of readers, collection, and services have been extensively discussed. An evaluative view about the library has also emerged from the study.

*Head, Department of Library and Information Science, Makhanlal Chaturvedi National University of Journalism, Bhopal-462 016.

But the library covers only about 2% of the population of the area. No justification of this has been provided in the study. The repetition of the concepts several times restrict the reader's progress with the book.

The book has been presented in almost 70 tables, 8 pie charts, one bar diagram, three photographs and numerous interpretations. The book is an excellant treatise on the utility of the public library in a homogeneous commu-nity representing high educational level and middle standard of living. The book is equally helpful for the teachers, students and schools of library and information science.

The book is the prey of bad proof reading and oversight of mistakes. The library photographs do not show the captioned message. Mistakes of spellings are almost on every page. Even the name of the publisher is wrong on the title page

With a Pinch of Salt

K.R.V. Subramanian*

Subhash Mehta & Ramesh Bangia. DOABA Advanced Learner's Dictionary of Computers. Delhi, Doaba House, 1997. Pp. 364. Rs. 95.00.

What does one do when encountering a new word in, say, a work of fiction? Some ask others and some try to figure out the meaning based on the context. Many would look up a dictionary. But what does one do when encountering a new word in a book or a magazine devoted to computer? Asking someone else for the meaning is fraught with difficulties ranging from inhibition to non-availability of a suitable person. The way new words, terms, acronyms and abbreviations emerge in the field of computers, understanding the meaning from context may not be reliable. So, look up a dictionary. The problem is that the general dictionaries of the English language have just begun to include terms such as *desktop publishing* and acronyms such ASCII (Webster's New Dictionary and Thesaurus). DOABA Advanced Learner's Dictionary of

Dean, Distance Learning Programmes Division, BITS, Pilani-333 031.

Computers is therefore a source to look up. The dictionary does provide reference to about 5000 terms. The dictionary contains technical terms, phenomena, abbreviations, acronyms (it is an acronym-crazy industry), personalities and concepts. That is certainly a stupendous effort on the part of the authors to have put together a myriad collection of lexicographic items, all connected in one way or the other with computers.

A dictionary is often perceived to be the authority on the matter concerning the spelling of a word, meaning, etymology or pronunciation. A good dictionary ought to have a ring of authenticity. This is where this book falls short. The explanations for many of the terms do not have this authenticity. For instance, *address register* is stated to be "A register on some support chips....." Many books would describe this to be normally present on CPUs that is accessible to programmers. An *applet* is described to be a "Small application, such as a utility program." I am not sure

how connoisseurs of Java would react to this definition. Similarly, the explanation for *array processor* is far from satisfactory. For a correct definition, the authors may consult the book by Andrew S. Tannenbaum, *Structured Computer Organization*, PHI! The explanation offered to *artificial intelligence* however takes the proverbial cake. It is described as "A science and technology whose goal is to develop computers that can think, as well as see, hear, talk and feel." As it is, the world of computers is filled with all kinds of myths. The last one wants is a dictionary that reinforces, nay, perpetuates these myths! An *assignment statement* is stated to be "a compiler directive". With this kind of explanation I would have difficulties in my course on compiler construction. I would have to compete with the "authenticity" of the dictionary! These instances cited do not appear to be isolated errors. Out of the 208 terms appearing under the alphabet A about 25 have dubious explanations. The trend carries on throughout the book. Included in the book are some oddities like *A:*, *A20*, and *B:*, among several others. Now why would someone want to look up the term *A20*? And what if someone does look up *B:*? He is informed that it is an "abbreviation for byte or baud!" *ATM* is supposed to be "automatic teller machine" and *not* "asynchronous transfer mode." I actually tried making a list of all terms in the book that have less-than-satisfactory explanations, are downright erroneous, oddities that are best left out of a dictionary and similar such warts. It was overwhelming. True, the authors have put in a brave effort, but dictionaries do have to have an unassailable stamp of authenticity. At a modest price of Rs. 95/- the offering is irresistible. And there are no other offerings in view. Would I consult the dictionary? Yes, most certainly, but accept the explanations with a pinch of salt!

Practicals in Commerce Education

Vasudha Joshi in her article "Practicals in Commerce Education" has projected a rosy picture of the results achieved by Practicals in Commerce Education in Pune University (*University News*, 1 December, 1997).

It is true that practicals in Commerce Education was a novel and innovative experiment introduced by the University of Poona at the initiative of Dr. S.B. Kolte, who was the then Dean of the Faculty of Commerce and as rightly stated by Vasudha Joshi, it was supposed to bridge the gap between classroom learning and real life in the business world. It is also equally true that teachers in some colleges made a conscious effort to make this experiment a success and motivated the students to become more resourceful. This scheme must be continued in our University and also introduced in other universities in the country.

However much leaves to be desired in this respect. Firstly, the teachers themselves must be trained to identify suitable assignments for practicals. It would be worthwhile if the teachers are given the opportunity to undertake summer training in various industrial business houses.

Secondly, we must approach not only manufacturing units of commercial houses, but retail and wholesale centers also, for giving practical lessons to commerce students. Commerce students are totally unaware of how trade is done in large commodity markets. It is also necessary to identify assignments from the service sector companies. Future employment potential is going to be largely in business units of the Service Sector.

If practicals have changed the relative importance of subjects, giving more weightage to descriptive Commerce subjects, I consider it dangerous because I feel that commerce graduates must have adequate grounding in conceptual subjects like Economics and scientific methods so that they can later take decisions, on a logical basis. We have yet to settle the question whether Commerce discipline belongs to a study of fundamentals in Economics and scientific methods or whether it is barely a practical oriented discipline. The performance of commerce students in competitive employment opportunities was, and still is, very poor, largely because Commerce Education does not give adequate emphasis on basic subjects which would enable them to develop their analytical capacity.

Vasudha Joshi claims that classroom attendance has improved because of practicals I am not sure whether this is true. It may be that classroom attendance has improved only for completing practical assignments. Classroom attendance for regular lecturing periods in the class has sharply gone down and commerce teachers have still to meet the challenge of motivating students to remain present in the class.

This is not to suggest in any way that practicals should be discontinued. In fact, practicals should be given importance to the extent possible.

P.C. Shejwalkar
Professor-Emeritus of Commerce
& Management Sciences,
Pune University, Pune-411 007

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

SOCIAL SCIENCES

Library & Information Science

1. Ajit Singh. **Organizational role stress: A comparative study of job involvement and job satisfaction of Library professionals in libraries of agricultural and other universities of Punjab, Haryana and Himachal Pradesh.** (Dr K Navlani), Department of Library and Information Science, Punjabi University, Patiala.

Psychology

1 Anju Bala. **A socio-psychological study of psychiatric patients of Patiala.** (Dr G S Bhatnagar), Department of Psychology, Punjabi University, Patiala.

2 Gogoi, Krishna Prasad. **Personality assessment of institutionalised children.** (Dr O P Singh), Department of Psychology, Gauhati University, Guwahati.

3 Mohineet Kaur **Relationship between the affective and cognitive domains under conditions of psychopathology and normality.** (Dr George Kurian), Department of Psychology, Punjabi University, Patiala

4 Pandove, Indra. **A socio-psychological analysis of female foeticide.** (Dr Agyajit Singh and Dr Sushila Goel), Department of Psychology, Punjabi University, Patiala

5 Sahney, Chand **Attitude of soldiers in peace and field areas towards work and adjustment problems.** (Dr Agyajit Singh and Dr Vidhu Mohan), Department of Psychology, Punjabi University, Patiala.

Sociology

1 Sorathia, Jayshree Shantilal. **Yuvatio upar adhunikikaranno prabhav ane teoma avelu parivartan Ek samajshastriya sansodhan.** (Dr R M Bhatty), Department of Sociology, Bhavnagar University, Bhavnagar.

Anthropology

1. Patnaik, Rajesh. **Urban poor, social policy and international assistance : Dimensions of planned interventions in the slums of Visakhapatnam City, India.** (Prof D L Prasada), Department of Anthropology, Andhra University, Waltair

Political Science

1 Bains, Iqbal Singh. **Changing pattern of political elite in Punjab : A case study of three districts.** (Dr Dalip Singh), Department of Political Science, Punjabi University, Patiala

2 Barthakur, Parbati. **The Bodo tribal in the changing socio-political landscape of the Brahmaputra Valley: A study in political geography.** (Prof A Dutta and Prof N N Bhattacharjee), Department of Political Science, Gauhati University, Guwahati

3 Lakhwinder Singh. **A study of caste and politics in Punjab from 1966 to 1992.** (Dr J A Khan), Department of Political Science, Punjabi University, Patiala

4 Mohsin, Fatima **An analytical study of the office of Speaker in Karnataka, 1983-89.** (Dr V T Patil), Department of Political Science, Gulbarga University, Gulbarga.

5 Surmukh Singh. **A study of socio-economic factors for the demand of state autonomy in India with special reference to the CPI(M), the Shiromani Akali Dal and the DMK.** (Dr Dalip Singh), Department of Political Science, Punjabi University, Patiala.

6 Tripathi, Ravindra Kumar. **Electoral process and electoral reforms in India.** (Prof P S Reddi), Department of Political Science, Gauhati University, Guwahati

Economics

1 Borthakur, Indira. **Trends in productivity of rice in Assam, 1951-1985 · An interdistrict analysis.** (Prof K K Barman), Department of Economics, Gauhati University, Guwahati.

2 Duni Chand **Resource use efficiency and potential of agricultural production in Himachal Pradesh.** Department of Economics, Himachal Pradesh University, Shimla.

3. Kalyani, T S. **A study on the risk taking behaviour of farmers in South Arcot District.** (Dr A V Rangachari), Department of Economics, Annamalai University, Annamalainagar.

4 Malathi, N **Employment potential and income at rural industries : A study in Kannarajan District.** (Dr A V Rangachari), Department of Economics, Annamalai University, Annamalainagar.

5 Medni, Ranjit **Mineral resources of Assam: An analytical study of their use level and industrial potentiality.** (Prof R K Choudhury), Department of Economics, Gauhati University, Guwahati

6 Nath, Sudarshan **Impact of technology on green revolution in Karimganj District, Assam.** (Dr S K Dass), Department of Economics, Gauhati University, Guwahati.

7 Sharma, Keshav Ram **Capital and credit needs under different farming systems of Himachal Pradesh.** Department of Economics, Himachal Pradesh University, Shimla

8 Talukdar, Sanjay Kumar. **District industries centre in Assam, organisation and activities: A critical analysis with special reference to the district industries centre of Kamrup and Nalbari districts.** (Dr Kailash Sarma), Department of Economics, Gauhati University, Guwahati

Education

1 Ellakkakumar, B **A study of certain psychological variables of Engineering and Agriculture students in relation to their achievement.** (Dr S Umayaparvathi), Department of Education, Annamalai University, Annamalainagar

2 Jagdish Kaur **Attitude of female post graduate students towards small family norms in relation to their career plan, employment, status of the mother and socio-economic status.** (Dr T S Sodhi), Department of Education, Punjabi University, Patiala.

3. Lalthankungi. **An appraisal of adult education programme in Mizoram.** (Dr P K Ganguli and Dr K P Nath) Department of Education, North Eastern Hill University, Shillong.

4 Md Shalauddin. **A study on the influence of physical education on the physical fitness of the boys in the high schools of Manipur.** (Dr Jamini Devi), Department of Education, Manipur University, Imphal.

5. Panda, Bhibhuti Bhusan. A comparative study of the attitude towards teaching profession and job satisfaction of college teachers of Assam and Orissa. (Prof Lakshahira Das), Department of Education, Gauhati University, Guwahati.

6. Pushpinder Kaur. Factors which motivate rural female adults to participate in the Adult Education Programme in relation to some selected socio-personal and economic factors. (Dr Amrit Kaur), Department of Education, Punjabi University, Patiala.

7. Rajasekar, S. A study of higher secondary achievement in Physics as related to certain variables. (Dr N O Nellaiyappan), Department of Physical Education, Annamalai University, Annamalainagar.

8. Sakthugnanavel, D. Effect of continue running, Yoga Pranayama and combination of continuous running and Yogic Pranayama, exercise on cardio respirtory endurance selected physiological and psychological variables. (Dr K Vaithianathan), Department of Physical Education, Annamalai University, Annamalainagar

9. Samraj, P. Efficacy of progressive and fluctuating resistance training on strength and biochemical parameters. (Dr K Vaithianathan), Department of Physical Education, Annamalai University, Annamalainagar.

10 Sarma, Nripendra Nath. Contributions of Srimanta Sankardeva and his associates towards Education amongst the rural folk of Assam. (Dr P C Das), Department of Education, Gauhati University, Guwahati.

11 Sudhan Paulraj, R L. Effect of varied pace running and interval running on selected physical and biochemical variables. (Dr K Vaithianathan), Department of Physical Education, Annamalai University, Annamalainagar.

12 Surjit Singh. Establishing norms for physical fitness of primary school children of Punjab and Haryana. (Dr M S Sangral), Department of Education, Punjabi University, Patiala.

13 Tiwana, Paramjit Kaur. Educational philosophy of Guru Gobind Singh and its impact on present thinking in Education. (Dr T S Sodhi), Department of Education, Punjabi University, Patiala

14. Verma, Het Ram. Attitude towards modernization in relation to alienation, achievement, motivation and values of rural educated youth of Himachal Pradesh. Department of Education, Himachal Pradesh University, Shimla.

Commerce

1 Chowdhury, Rituparna. A study of managerial problems of the state level enterprises of Assam in the textile sector from 1982-1992. (Prof Bharati Sharma), Department of Commerce, Gauhati University, Guwahati.

2 Das, Apurba Kumar. Jute industry in Assam: Performance, problems and prospects. (Prof D Bharali), Department of Commerce, Gauhati University, Guwahati.

3. Gurumoorthy, T R. Attitude of budget managers towards budgeting : A study with reference to Bharat Heavy Electricals Limited, Tiruchirapalli. Department of Commerce, Alagappa University, Karaikudi

4. Jayashree, Ch. Consumer behaviour of urban working women. (Prof H Venkateshwarlu), Department of Commerce, Osmania University, Hyderabad

5. Md Nekib Hussain. Role of commercial banks in integrated rural development of Assam. (Prof Devadas Bharali), Department of Commerce, Gauhati University, Guwahati.

6 Saha, Ashut. Effects of price-level changes on corporate accounting of selected tea companies. (Prof S Sikidar), Department of Commerce, Gauhati University, Guwahati.

Management

1 Mahesh Paramjit Kumar. Operational efficiency of electricity boards : A comparative study of P S E B and H S E B. (Dr M S Bedi), Department of Business Management, Punjabi University, Patiala.

2. Rama Murthy, B Sita. Management of family planning programmes in India : A case study of Vizianagaram District in Andhra Pradesh. (Prof J V Prabhakar Rao), Department of Commerce and Management Studies, Andhra University, Waltair.

3 Sharma, Anita. Agricultural credit markets interlinked with other agrarian markets in Punjab. (Dr U C Singh and Dr Gian Kaur), Department of Management, Punjabi University, Patiala.

4. Suresh Babu, T K. Capital structure practices of private corporate sector in India. (Prof P K Jain), Department of Management Studies, Indian Institute of Technology, New Delhi

EDUCATION NEWS INDEX

A list of select articles and editorials on education from newspapers received in the
AIU Library during November 1997

EDUCATIONAL PHILOSOPHY

Bhattacharjee, Jyotsna The object of education The Assam Tribune 2 11.97

Gopalakrishnan, K V. Value based education need of the hour. The Hindu 18 11 97.

Hopper, W A F Vision-mission for the 21st century. The Hindu 18.11 97.

EDUCATIONAL PSYCHOLOGY

Chandershekhar. 'Spoil the rod and spare the child' The Tribune 3.11.97.

Chandrasekaran, Mohana. The capacity to discipline onself The Hindu 4.11.97

Krishnaswamy, M. Participatory learning Deccan Herald 4.11.97

Mirajkar, Archana Should physical punishment be allowed? . Ye cannot came. The Statesman 21.11 97.

Mukherjee, Amit Should physical punishment be allowed Be a little Humane. The Statesman 21.11.97.

Poornima, B V Cheats gallery Deccan Herald 3.11.97.

Rose, Selva. Better reading for better performance The Hindu 18 11.97.

Subramanya, K V Eminent copycats. Deccan Herald 3.11 97

Vattam, Shyam Sunder. Check! Deccan Herald 3 11.97.

EDUCATIONAL SOCIOLOGY

Nanjundappa, D M Social watchdogs Deccan Herald 23 11.97

Sivadasan Pillai, K. Education for sustainable living. The Hindu 18.11.97.

EDUCATIONAL POLICY & PLANNING

Amar Jit. Primary education as fundamental right. The Assam Tribune 17.11.97

Kalkur, Ashok. Green signal for new varsity. The Hindu 10.11 97

Misra, Jalandindu. Education · The goal of record freedom struggle **The Hindu** 11 11 97

SOUND IDEAS on education (Editorial) **The Tribune** 19 11 97

EDUCATIONAL ADMINISTRATION

Agrawal, Damodar. Aptitude oriented education required **The Pioneer** 19 11 97

Amrik Singh UGC's mixed up priorities. **The Hindu** 5 11.97

Dinesh, Chethana A crying scheme **Deccan Herald** 23 11 97

Ganpathy, K S Can't we reduce the drudgery **The Hindu** 11 11 97

Jupinder Jit Singh They practise what Rastogi preaches **The Tribune** 17 11 97

Ramachandran, Padma The Rastogi Committee Report (UGC) A note **The Hindu** 4 11 97

Sharada Prasad, H Y Should we pay teachers more than bureaucrats **Deccan Chronicle** 1 11 97

Sood, Ravinder After UP wallahs, try a Himachali as VC **The Tribune** 17 11 97

UNBECOMING OF VC (Editorial) **Deccan Chronicle** 13 11 97

CURRICULUM

Joshua, Anita Towards job-oriented curricula **The Hindu** 17 11 97

LANGUAGE & LANGUAGE POLICY

Sharma, Madan English at the secondary level **The Assam Tribune** 4 11 97

SCIENCE EDUCATION

Anantharaman, Ambujam A Decade of research in biotechnology and medicine **The Hindu** 27 11 97

VOCATIONAL EDUCATION

Dange, Sanjay and Dubey, Madhur Children of a lesser god **The Economic Times** 10 11 97

Joshua, Anita New course for new skills **The Hindu** 24 11 97

Moorthi, Y L R How to teach marketing **The Economic Times** 10 11 97

Nanda, Antara CMAs walk off with plum jobs **The Times of India** 26 11 97

———————— Engineering the high seas **The Times of India** 5 11 97

Pajan, Manish Moonlighting while in school **The Economic Times** 10 11 97

Panda, Debdutt Professional psyche **The Hindustan Times** 24 11 97

PAST, PRESENT, Future (Editorial) **The Hindustan Times** 25 11 97

Prasanna Bhat, V The case hearing **The Economic Times** 24 11 97

Ramachandran, D Mark it to pounds and dollars **Deccan Chronicle** 12 11 97

Sharma, Jatinder No building, no staff, but fat fees **The Tribune** 17 11 97

Singh, Shalini Measuring up to recruiters' expectations **Indian Express** 25.11 97

Tandon, Kumkum Careers in the Air Force **The Pioneer** 24 11 97

———————— Information technology **The Pioneer** 17 11 97

Wal, Bhavna Lingua franca route to big bucks **Indian Express** 18 11 97

DISTANCE EDUCATION

Mukhopadhyay, Soumik A new horizon beckons **The Statesman** 19 11 97.

TEACHERS & TEACHING

Amrik Singh Student assessment of teachers **The Hindu** 24 11 97

Ciju, T R and Narayan, Badri. Teacher, teach thyself **The Economic Times** 24 11.97.

Jaspal Singh Educational turmoil in Punjab Importance of teaching English **The Tribune** 24 11 97

Moula, Shaik Teaching children, a different cup of tea now **The Hindu** 11 11 97.

Rajput, J S Ignorance illiteracy and school teachers **The Hindu** 25 11 97.

Chandrashekhar, S Enter the cyberteacher. **The Economic Times** 24 11 97

Ghosh, P K The Internet A global laboratory **The Statesman** 17 11 97

LIBRARIES & BOOKS

Datta, Ella Catching bookworms young **The Telegraph** 19 11 97

Ghoshal, Raja The changing profile of a librarian **The Times of India** 12 11 97

Kamath, M V Should foreign books be reviewed? **The Tribune** 14 11 97

Ziya Us Salam A booklover's tacky paradise **The Statesman** 5 11 97

STUDENTS & STUDENT ACTIVITIES

Shivakumar.S Fewer fun-filled festivals **The Hindu** 24 11 97

Vaswani, Leena Teaching new dogs old tricks **The Economics Times** 3 11 97

SPECIAL EDUCATION

Chandramauli Listen. . **Deccan Herald** 9 11 97

Kavitha K Speaking figures **Deccan Herald** 9 11 97

Lalitha, N Extending opportunities for dyslaxics **The Hindu** 18 11 97

Munshi, Anju The hidden handicap **The Telegraph** 10 11 97

Rao, T S Not dumb, but silenced **Deccan Herald** 9 11 97

Raote, Komilla Fear of numbers **The Pioneer** 9 11 97

WOMEN'S STUDIES

Rana, Sudarshana A new hope for girls **The Tribune** 17 11 97

ELEMENTARY & SECONDARY EDUCATION

Lawrence, H S S School education in Tamil Nadu **The Hindu** 25 11 97

Ray, Sudakshina The weight of learning **The Telegraph** 17 11 97

COMPARATIVE EDUCATION & AREA STUDIES

De Sarkar, Bishakha Spreading the good word **The Telegraph** 22 11 97

Lal, Neeta Education in Canada **The Times of India** 12 11 97

Rajagopalan, T Australia Where different cultures mingle **The Hindu** 4 11 97

INSTITUTIONAL PROFILE

Bhatnagar, Gaurav Vivek Institute in the eye of storm Maharaja Surajmal Institute of Pharmacy and Technology, New Delhi **The Hindu** 3 11 97

Bhuyan, Devajit The changing role of AICTE **The Assam Tribune** 8 11 97

Jacob, K J ICRISAT In the forefront of the battle against hunder **Deccan Chronicle** 16 11 97

Sharma, Chandra Nath Assam Medical College In our days. **The Assam Tribune** 1 11 97

Wasan, Tarun ICFAI (Institute of Chartered Financial Analysts) Business School **The Times of India** 26 11 97

BIOGRAPHICAL PROFILE

Deva Raju A. The Raman Saga **Deccan Herald** 21.11 97

Goswami, Manish The unique experiment · Dr R C Das. **The Assam Tribune** 23 11 97

Harihare Rao, S A giant who studied dworfs Chandrasekhar **Deccan Herald** 25.11 97

Narasimhan, Sakuntala One man's vision Science for all Prof Abdus Salam. **Deccan Herald** 23 11 97

Pandey, Deepak Kumar Birth of DU **The Hindustan Times** 12 11 97

Yadav, J S Krishan Singh Arya . A father-figure of education in UT **The Tribune** 21 11 97

CLASSIFIED ADVERTISEMENTS

UNIVERSITY OF CALICUT

No. GAII/C1/3081'

Calicut University P.O.,
Dated : 23.12.1997

VACANCY NOTIFICATION

Applications are invited from eligible candidates for recruitment to the following teaching positions in the various teaching departments of this University

Name of Department, Category & Number of vacancies	Post allocation (whether open/reserved)	Nature of vacancy	Subject of specialisation
1. Mathematics			
Professor-1	Open	Permanent	Nil
*Lecturer-1	SC/ST	Permanent	Nil
2. Statistics			
Professor-1	E T B	Permanent	Nil
Reader-2	1 E T B	Permanent	Nil
	2 Open	Permanent	Nil
*Lecturer-1	SC/ST	Permanent	Nil
3. Physics			
Professor-2	1 Open	Permanent ⎫	Nuclear Physics/Solid State
	2 E T B	Permanent ⎪	Physics/Theoretical Physics
Reader-3	1 Open	Permanent ⎬	**
	*2 SC/ST	Permanent ⎪	
	3 Open	Permanent ⎭	
Lecturer-1	Muslim	Temporary	Nil
4. Chemistry			
Professor-2	1 SC/ST	Permanent	Nil
	2 Open	Permanent	Natural Products Chemistry
Reader-3	1 E T B	Permanent ⎫	Organic Chemistry/
	2 Open	Permanent ⎬	Physical Chemistry/
	3 Muslim	permanent ⎭	Inorganic Chemistry
Lecturer-1	Open	Permanent	Polymer Chemistry/Analytical Chemistry
5. Botany			
Reader-1	Open	Permanent	Mycology
Lecturer-4	1 Open	Permanent ⎫	Angiosperm Taxonamy/Plant
	2 O B C	Permanent ⎪	Genetics & Breeding/ Algology/
	3 Open	Permanent ⎬	Bryology/Plant Physiology/ Ecology
	4 SC/ST	Permanent ⎭	**
6. Zoology			
Professor-2	1 E T B	Permanent	Nil
	2 Open	Permanent	Nil
Lecturer in Biophysics-1	*LC/AI	Permanent	Nil
Lecturer in Zoology-1	Open	Permanent	Nil
Lecturer in Biostatistics-1	O B C	Permanent	Nil
Lecturer in Zoology-1	Open	Permanent	Nil
7. Life Sciences			
Lecturer in Microbiology-1	*LC/AI	Temporary (Likely to be made permanent)	Nil
Lecturer in Biochemistry-1	Open	Temporary	Nil
8. Biotechnology			
***Professor-1	E T B	Permanent	Nil
9. English			
Professor-2	1 Open	Permanent	Nil
	2 SC/ST	Permanent	Nil
10. Malayalam			
Lecturer-1	*LC/AI	Permanent	Nil
11. Hindi			
Professor-1	E T B	Permanent	Nil

Reader-1	Muslim	Temporary	Nil
Lecturer-1	*Muslim	Permanent	Nil
12. Sanskrit			
*****Professor-1	E T B	Permanent	Nil
Reader-1	SC/ST	Temporary	Nil
13. Arabic			
Reader-1	Open	Temporary	Nil
Lecturer-1	Open	Temporary	Nil
14. Economics			
*Reader in Statistics-1	Open	Permanent	Nil
15. History			
Professor-1	SC/ST	Permanent ⎫	**Ancient History
Reader-2	1 Open	Permanent ⎬	Kerala Studies/ Modern History
	2 SC/ST	Permanent ⎭	**
16. Journalism			
Professor-1	Open	Permanent	Nil
17. Philosophy			
Lecturer-1	Open	Temporary (Likely to be made permanent)	Nil
18. Psychology			
Professor-1	E T B	Permanent	Nil
Reader-2	1 Open	Permanent	Organizational behaviour
	2 E T B	Permanent	Nil
*Lecturer-1	Muslim	Temporary	Nil
19. Commerce and Management Studies			
Professor-1*	Open	Permanent ⎫	General Management/Marketing
Reader-2	*1 Open	Permanent ⎬	Mgt/Finance Management/
	2 SC/ST	Temporary ⎭	Personnel Management **
Lecturer-2	*1 Open	Permanent ⎫	Marketing Management/Finance
	2 Open	Permanent ⎭	Management/Operations Research/Statistics/Personnel Management
20. Education			
Reader-2	*1 Open	Permanent	Nil
	2 Muslim	Temporary	Nil
21. Academic Staff College			
Director-1	E T B	****Temporary	Nil

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* Renotification

** In the absence of SC/ST Candidates possessing prescribed specialization, SC/ST candidates with general qualifications will be considered

*** Appointment to this vacancy will be subject to sanction of post by the University Grants Commission

**** Appointment to this vacancy will be subject to concurrence of the University Grants Commission for continuance of the post beyond 31 3 1998

***** Appointment to this vacancy will be subject to finalisation of the O P pending in the Honourable High Court of Kerala

2 a) The prescribed application form and detailed notification can be had from the undersigned on requisition by remitting Rs 100/- towards the cost of application form along with a self addressed stamped (stamp worth Rs 10/-) envelope of size 25x12 cm

b) Candidates belonging to SC/ST communities, Pysically handicapped, and Ex-Servicemen who are eligible for pension, are exempted from remitting the cost of application form; but such candidates should produce necessary certificate from competent authority to prove their eligibility

c) Employed candidates who belong to SC/ST communities are required to remit only Rs 15/- towards cost of application form provided they produce community certificate from the competent authority

3 Candidates from abroad may apply on plain paper along with copies of certificates remitting an application fee of Rs 250/- by crossed D/D, and they will be given an additional time limit of 15 days for submission of their applications

4 Candidates applying from outside the State of Kerala should remit the cost of application form by Indian Postal Order Payable to the Finance Officer, University of Calicut, P O Calicut University Candidates from within the State should remit the cost of application form to the credit of the following Heads of account

1 8443-00-106-PD Account of the Calicut University (for Treasuries in Malappuram District)

2 8658-00-102-96(02)-CUS (For Treasuries in other Districts)

3 No II Current Account of the Finance Officer, Calicut University (For making remittance at State Bank of Travancore, Thenhipalam Branch or at other accredited branches of SBT under the Calicut University area)

5 Age limit, qualifications, scale of pay etc will be as per the University Grants Commission Norms/Calicut University ACT/Statutes/Regulations/University rules and which will be as prescribed in the detailed notification, that will be supplied along with the application form

6 The requisitions for application form along with the Challan receipt/Indian Postal Order/D.D accompanied by a self-addressed stamped cover, (Stamp worth Rs 10/-), may be addressed to the undersigned

7 The last date of receipt of completed application with the Challan/DD/IPO for Rs 100/150/200, as the case may be, in the University office is **31.01.1998 5 P.M.**

**Prof. T.K. Ummer
REGISTRAR**

INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES
(DEEMED UNIVERSITY)

Applications are invited for the following ad-hoc posts at the Institute.

(1) PROFESSOR : 1 POST — DEPT. OF EXTRA MURAL STUDIES

(a) Qualifications required :

i) Essential : Ph D in Demography/ Population Studies/Bio-Medical Science/ Environmental Science or in any Social Science subjects listed in ICSSR/Statistics/ Mathematics with specialization in Population Studies and with minimum of 10 years experience of which 5 years experience as Reader of postgraduate teaching/research in Population Studies at a University or National Institution

ii) Desirable :

(a) Experience of having successfully guided students for the award of Ph D degree in Population Studies and/or published original research papers in the area of Population Studies

(b) Working experience related to Distance Education in the field of Population Studies such as preparation of teaching material, etc

(b) Pay :

Consolidated salary of Rs 11000/- per month with an yearly increase of Rs 600/-

(c) Age Limit :

50 years as on the last date of receipt of applications

(2) READER : 1 POST — DEPT. OF EXTRA MURAL STUDIES

(a) Qualifications required :

i) Essential :

Ph D in Demography/Population Studies/ Bio-Medical Science/Environmental Science or in any Social Science subjects listed in ICSSR/Statistics/Mathematics with specialization in Population Studies and with minimum of 8 years experience of which 5 years experience as a Lecturer of postgraduate teaching/research in Population Studies at a University or National Institution Candidates from outside the University system, in addition shall have atleast 55% marks or an equivalent grade at Master's degree level

ii) Desirable :

(a) Experience of guiding students for the award of Ph D degree in Population Studies and/or published original research papers in the area of Population Studies

(b) Work experience related to Distance

Education in the field of Population Studies such as preparation of teaching materials, etc

(b) Pay :

Consolidated salary of Rs 7,500/- per month with an yearly increase of Rs 500/-

(c) Age Limit :

45 years as on the last date of receipt of applications

Applications in the following format alongwith attested copies of degrees and all testimonials, birth certificate, marksheets, published research articles, etc , should reach the following address on or before **February 06, 1998.**

Director
International Institute for Population Sciences
Govandi Station Road, Deonar,
MUMBAI # 400 088.

Applicants working in Govt /Semi-Govt organisations should send their applications through proper channel Applications incomplete in any respect and those received after due-date shall not be entertained

Dr. K.B. Pathak
DIRECTOR

FORMAT
APPLICATION

1 Post Applied for & Department
2 Name in full (Block Letters)
3 Sex
4 Father's/Husband's Name
5 Date & Place of Birth
6 Residential Address
   i) Permanent
   ii) Present to which communication to be sent
7 Nationality
8 Marital Status
9 Educational Qualifications
   (Graduation onwards)
10 Research Publications
   (articles/books/journals published
11 Experience (indicate separately)
   i) Teaching
   ii) Research
12 Details of Employment
13 References (Rank of Gazetted Officer)
14 Any other information
   (attach separate sheet)

DECLARATION

I declare that all the statements made in this application and its annexures are true to the best of my knowledge and belief

Place
Date   **SIGNATURE OF APPLICANT**

INDIAN INSTITUTE OF MASS COMMUNICATION
NEW DELHI

Advertisement No. 1/1644/97

Applications in the prescribed form are invited for the following posts for Institute

1 Professor (Journalism) (post will fall vacant on 1 5 98) (Head Quarter)
2 Associate Professor (Dhenkanal)
3 Assistant Professor (Dhenkanal)
4 Seminar Executive (Head Quarter)

However, the posts are transferable anywhere in India

Scale of pay :

1 Professor Rs 4500-7300

2 Associate Professor Rs 3700-5300

3 Assistant Professor Rs 2200-4000

4 Seminar Executive Rs 2200-4000

Age (as on 31 December 1998)

Normally below 55 years for Professor, below 45 years for Associate Professor and below 40 years for Assistant Professor and Seminar Executive Relaxation upto 5 years in the case of SC/ST and 3 years for OBC candidates

Application forms and full advertisement can be obtained from the **Registrar Incharge, Indian Institute of Mass Communication, Aruna Asaf Ali Marg, JNU New Campus, New Delhi-110 067** either in person or by post by sending self addressed and stamped (Rs 3.00) envelope (27 x 13 cms) Completed

application form should be accompanied by a Demand Draft for Rs. 50/- for General candidates and Rs. 20/- for SC/ST and OBC candidates drawn in favour of "Indian Institute of Mass Communication, New Delhi". Last date for issue of application form is 20.2.1998 and receipt of completed application is 27.2.1998.

While the Institute will take every care and caution in sending communication, it does not take any responsibility for postal lapses or delay.

PRANABANANDA WOMEN'S COLLEGE

DIMAPUR-797 112 : NAGALAND
WANTED

(1) A Principal for Bharat Sevashram Sangha sponsored and Nagaland University affiliated Women's College. Age above 45 years Retired person having good health may apply Preference will be given who is acquainted with the land, people and culture of North-East Region Salary and other facilities negotiable

(2) Lecturers in Pol Science, minimum 55% marks in M A., initial pay Rs. 3500/-. Apply within 25th January 1998. Pranabananda Women's College, Lhomithim Colony, Dimapur-797 112, Nagaland

Manik Bhattacharjee
SECRETARY

THAPAR INSTITUTE OF ENGINEERING & TECHNOLOGY
PATIALA-147 001

Advertisement No. PAS/10/97

Applications on plain paper with complete Biodata, citing qualifications and experience along with copies of testimonials are invited for the post of a Junior Research Fellow for a DST funded project on Cognitive and Experimental Psychology for a period of 2 years Minimum qualification is M A in Psychology with 55% marks and experience in Psychological testing and experimentation The fellowship carries a sum of Rs 2500/- (p m) plus HRA of Rs 500/- (p m) Candidates who have passed the National Entrance Test like UGC/CSIR would be preferred Applications should reach the undersigned on or before 23.1.1998.

REGISTRAR

INDIAN INSTITUTE OF MASS COMMUNICATION
NEW DELHI

Adv. No. I/1655/Dec./97

Applications in the prescribed form are invited for the post of Registrar

Scale of Pay : Rs 4500-150-5700 (Pre-Revised)

Age (as on 31 December 1997) . Below 50 years

Application forms and the full advertisement can be obtained from Deputy Registrar, Indian Institute of Mass Communication, Aruna Asaf Ali Marg, JNU New Campus, New Delhi-110 067, either in person or by post by sending a self-addressed stamped (Rs. 2.00) envelope (27 x 13 cms) Completed application form should be accompanied by a Demand Draft for Rs. 50/- in favour of "Indian Institute of Mass Communication, New Delhi "

Last Date : For issue of application form is 20 February 1998 and receipt of completed application is 27 February 1998.

While the Institute will take every care and caution in sending communication, it does not take any responsibility for postal lapses or delay.

PROFESSOR S.R. PALIT MEMORIAL AWARD-1999

Nominations are invited for the award of Professor Santi Ranjan Palit Memorial Award for the year 1999.

The award of Rs. 10,000/- value was instituted in the year 1985 in memory of late Professor Santi Ranjan Palit, a distinguished physical chemist and pioneer in Polymer Science who served Indian Association for the Cultivation of Science as a Professor of Physical Chemistry during 1947-1976. The award is given biennially by Indian Association for the Cultivation of Science (IACS) to distinguished scientists for outstanding research contribution made in India during the ten years preceding the year of award in the fields of Physical Chemistry and/or Polymer Science.

Nominations may be submitted by Vice-Chancellors of Universities; Deans of Science, Engineering and Technology faculties of Universities, Institutes; Directors of IITs and similar other institutions such as IISc, Bangalore; Directors of National, CSIR and Government laboratories; Heads of R&D organizations that are engaged in research in Physical Chemistry and/or Polymer Science; Presidents/Chairmen/Directors of INSA, ISRO, ONGC, BARC, TIFR etc., Presidents/Chief Executives of Registered Scientific Societies and the previous Palit awardees. Each such nomination shall be accompanied by a bio-data of the nominee along with a list of publications, highlights of the work carried out by the nominee and a critical assessment report (not more than 500 words) highlighting the importance and significance of the research contribution made by the nominee during the ten years preceding the year of the prize. Each nomination must be accompanied by a reprint, each of not more than 5 key publications of the nominee and a declaration/certificate that the work has been carried out in India.

The nominations signed by the sponsors should be marked *confidential* and sent by Registred A.D. post to *the Director, Indian Association for the Cultivation of Science, Calcutta-700 032* latest by 30th June, 1998.

Professor D. Chakravorty
Director
Indian Association for the Cultivation of Science
Calcutta-700 032